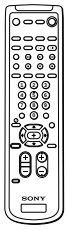
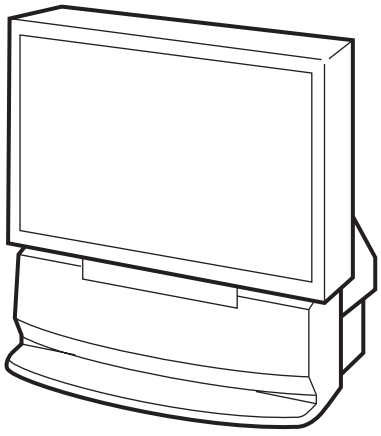
SERVICE MANUAL RA-2A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-53V75C	RM-Y903	Chile	SCC-N88D-A

MODEL	COMMANDER	DEST.	CHASSIS NO.





RM-Y903 KP-53V75C

MICROFILM

* Please file according to model size. .....□

53

COLOR REAR VIDEO PROJECTOR

SONY®

SPECIFICATIONS

Projection system 3 picture tubes, 3 lenses, horizontal in-line system

Picture tube 7 inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system

Projection lenses High performance, large-diameter hybrid lens F1.1

Screen size 53 inches (measured diagonally)

Television system American TV standards

Channel coverage VHF: 2 – 13 / UHF: 14 – 69 / CATV: 1 – 125

Antenna 75 ohm external antenna terminal for VHF / UHF

Inputs/output

VIDEO IN 1
VIDEO 2 INPUT
VIDEO IN 3
S VIDEO (4-pin mini DIN):
Y: 1 Vp-p, 75-ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal) 75 ohms
VIDEO (phono jack): 1 Vp-p, 75-ohms unbalanced, sync negative
AUDIO (phono jacks): 500 mVrms (100% modulation)
Impedance : 47 kilohms

VIDEO IN 4
Y: 1 Vp-p, 75-ohms, sync negative
C_B: 0.7 Vp-p, 75-ohms
C_R: 0.7 Vp-p, 75-ohms
AUDIO (phono jacks): 500 mVrms (100% modulation)
Impedance: 47 kilohms
TV OUT
MONITOR OUT
VIDEO (phono jack): 1 Vp-p, 75-ohms unbalanced, sync negative
AUDIO (phono jacks)
500 mVrms (100% modulation), Impedance: 5 kilohms

AUDIO (VAR / FIX) OUT (phono jacks)
500 mVrms (100% modulation)
Impedance: 5 kilohms

Speaker Full range speaker 100 mm (3.9 inches) diameter

Speaker output 15 W × 2

CENTER SPEAKER IN: 30 W × 1 (NORMAL), 60 W × 1 (MAX), 16 ohms

Power requirement 220 V AC, 50 / 60Hz

Power consumption
175 W
Standby mode: 2.5 W

Dimensions (W/H/D)
1,218 × 1,413 × 614 mm (W / H / D)
(48 × 55 5/8 × 24 1/4 inches)

Mass 73kg (161 lbs 2 oz)

Supplied accessories
Remote control RM-Y903 (1)
Size AA (R6) battery (2)

Optional accessories
U / V mixer EAC-66
Connecting cables RK-74A, RK-G34, VMC-10HG, VMC-720M, VMC-810S / 820S, YC-15V / 30V

Design and specifications are subject to change without notice.

SRS (●)® (SOUND RETRIEVAL SYSTEM)

The SRS (●)® (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pendeing.

The word 'SRS' and the SRS symbol (●) are registered trademarks of SRS Labs, Inc.

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(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESECOMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFEOPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SECTION 1
GENERAL

The operating instructions mentioned here partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in the manual.(part.no : 3-862-729-11)

Welcome!

Thank you for purchasing the Sony Color Rear Video Projection TV. Here are some of the features you will enjoy with your projection TV:

- Two tuner Picture-in-Picture (PIP) that allows you to watch another TV channel, video or cable image as a window or left picture.
- FAVORITE CHANNEL that allows you to view and choose from eight of your favorite programs.
- CH INDEX that allows you to view and choose from twelve programs.
- SAVA SPEAKER option on the AUDIO menu that lets you utilize the Sony SAVA series speaker system's surround sound and super woofer mode when you connect it to the projection TV.
- S-Link™ that allows you to automatically change the TV's input mode, turn on the VCR, and play a tape by just pressing the VCR's play button. This feature is a design unique to Sony.
- Y / C_B / C_R input connectors that allow you to connect a DVD player with component video output connectors.

About this manual

The instructions in this manual are for model KP-53V75C. Before you start reading this manual, please check your model number, located at the rear of the projection TV.

Instructions in this manual are based on use of the remote control. You can also use the controls on the projection TV if they have the same name as those on the remote control.

Precautions

This projection TV operates on extremely high voltage. To prevent fire or electric shock, please follow the precautions below.

Safety

- Operate the projection TV on 220 V AC .
- One blade of the plug is wider than the other for safety purposes and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the projection TV and have it checked by qualified personnel before operating it further.
- Unplug the projection TV from the wall outlet if you are not going to use it for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

For details concerning safety precautions, see the supplied leaflet "IMPORTANT SAFEGUARDS".

Note on cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth using vertical strokes only. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzine for cleaning. If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

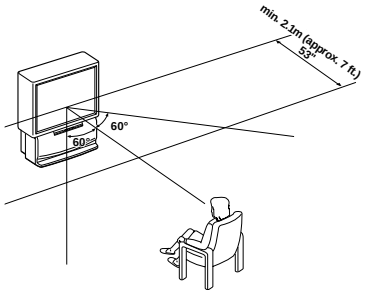
Installing

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- Avoid operating the projection TV at temperatures below 5°C (41°F).
- If the projection TV is transported directly from a cold to a warm location, or if the room temperature has changed suddenly, the picture may be blurred or show poor color. This is because moisture has condensed on the mirror or lenses inside. If this happens, let the moisture evaporate before using the projection TV.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of reflecting material. If necessary, cover them with dark carpeting or wall paper.

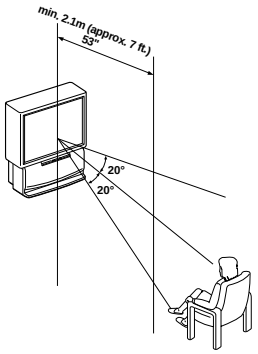
Step 1: Installing the projection TV

For the best picture quality, install the projection TV within the areas shown below.

Optimum viewing area (Horizontal)

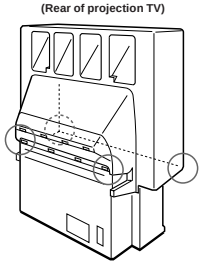


Optimum viewing area (Vertical)



Carrying your projection TV

Be sure to grasp the areas indicated when carrying the projection TV, and to use more than two people.



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Preparing for your projection TV

Before you use your projection TV, adjust convergence. For the procedure, see "Step 4: Setting up the projection TV automatically (AUTO SET UP)" on page **21**.

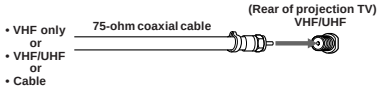
Step 2: Hookup

Although you can use either an indoor or outdoor antenna with your projection TV, we recommend that you connect an outdoor antenna or a cable TV system to get better picture quality.

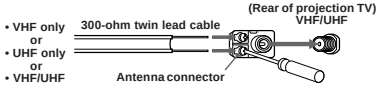
Connecting an antenna

Connect your antenna cable to the VHF/UHF antenna terminal. If you cannot connect your antenna cable directly to the terminal, follow one of the instructions below depending on your cable type.

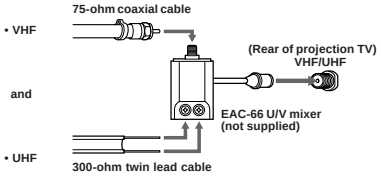
A



B



C

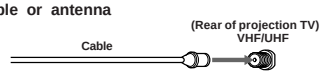


Notes

- Most VHF/UHF combination antennas have a signal splitter. Remove the splitter before attaching the appropriate connector.
- If you use the U/V mixer, snow and noise may appear in the picture when viewing cable TV channels over 37.

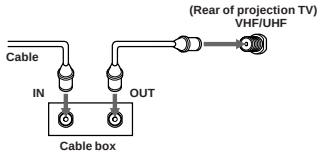
Connecting an antenna/cable TV system without a VCR

To cable or antenna

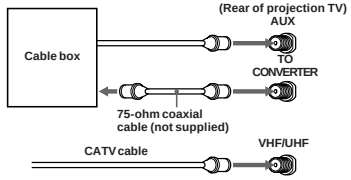


To cable box

If your cable company requires you to connect a cable box, make the connection as follows:



To cable box and cable



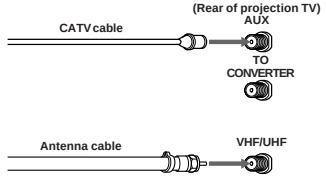
Pay cable TV systems use scrambled or encoded signals requiring a cable box* in addition to the normal cable connection.

* The cable box will be supplied by the cable company.

Note

- You cannot watch the signal through an AUX connector as a window picture.

To cable and antenna



Note

- Do not connect anything to the TO CONVERTER connector in this case.

Connecting an antenna/cable TV system with a VCR

For details on connection, see your VCR instruction manual.
Before making the connection, disconnect the AC power cords of the equipment to be connected.

After making these connections, you will be able to do the following:

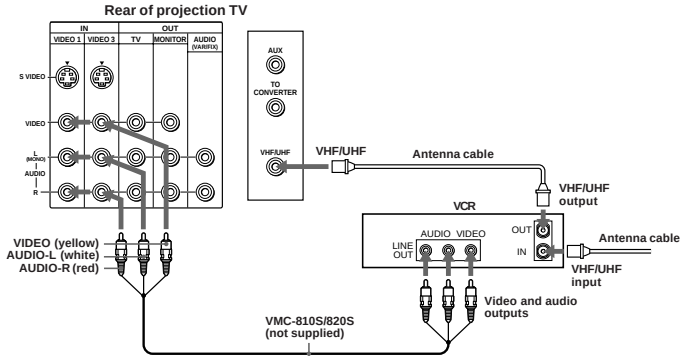
- View the playback of video tapes
- Record one TV program while viewing another program
- Watch two TV programs at once using PIP

To a conventional VCR

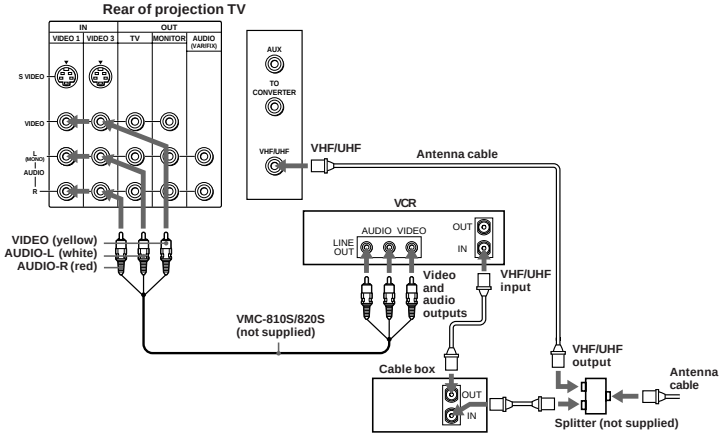
Note

- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (MONO) of VIDEO 1/3 IN on the projection TV.

Without a cable box



With a cable box



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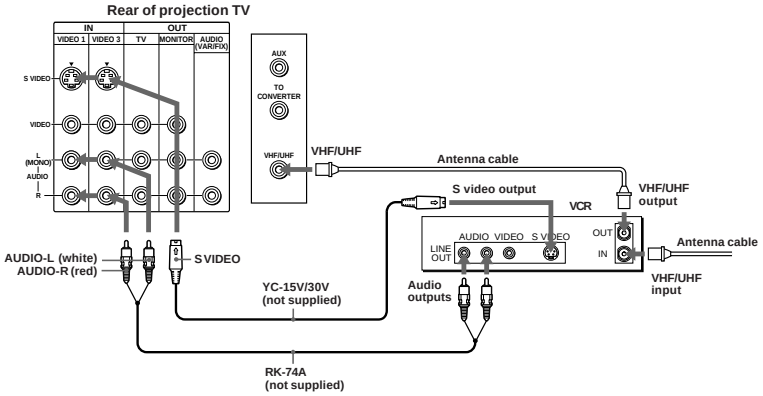
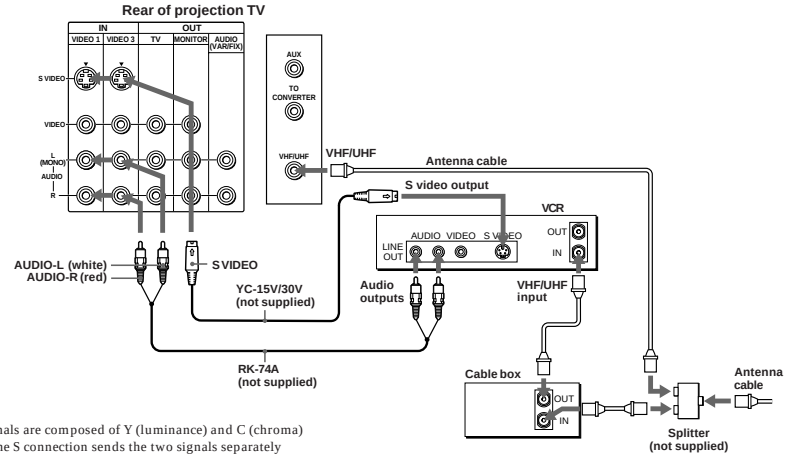
To an S video equipped VCR

If your VCR has an S VIDEO output connector, make the following connections.
Whenever you connect the cable to the S VIDEO input connector, the projection TV automatically receives S video signals.

Without a cable box



With a cable box



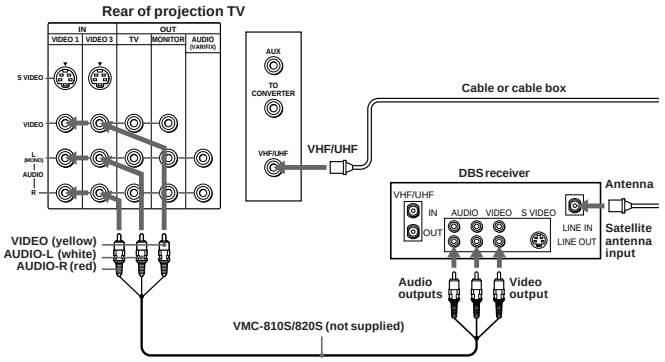
Note

- Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connections.

Connecting a DBS receiver

For details on connection, see the instruction manual of the DBS (Digital Broadcasting Satellites) receiver.

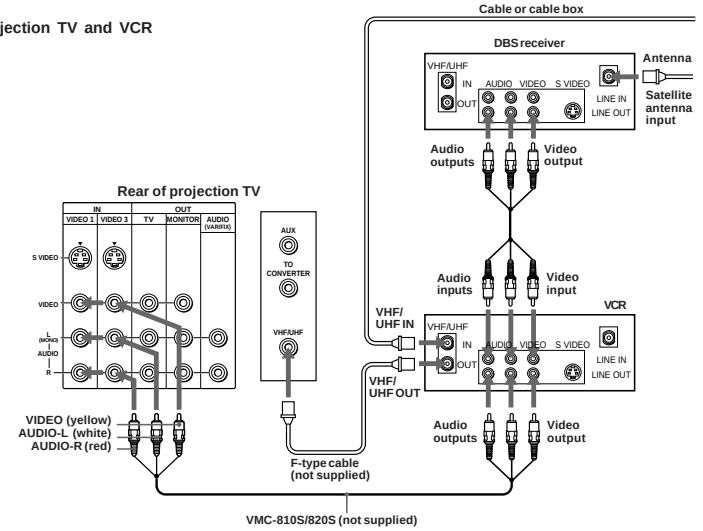
To a projection TV



Note

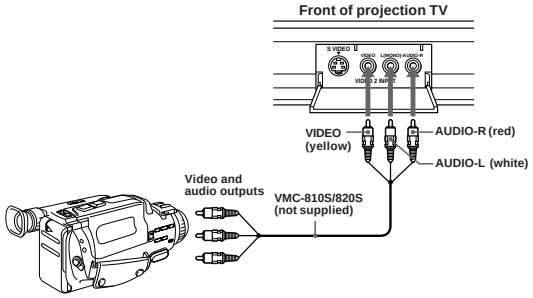
- You can use the S VIDEO connector or the composite video connector for the video connection.

To a projection TV and VCR



Connecting a camcorder

Use this connection to view a camcorder picture.

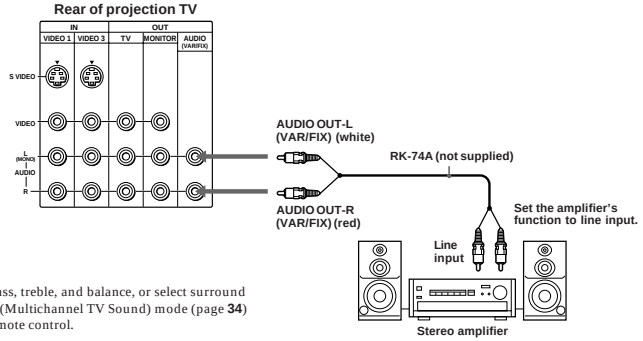


Notes

- To connect a monaural camcorder, connect the audio output of the camcorder to AUDIO-L (MONO) of VIDEO 2 INPUT on the projection TV.
- To connect a camcorder equipped with the S video output, connect the S video output of the camcorder to the S VIDEO connector of the projection TV.

Connecting an audio system

When connecting audio equipment, see page **32** for more information.



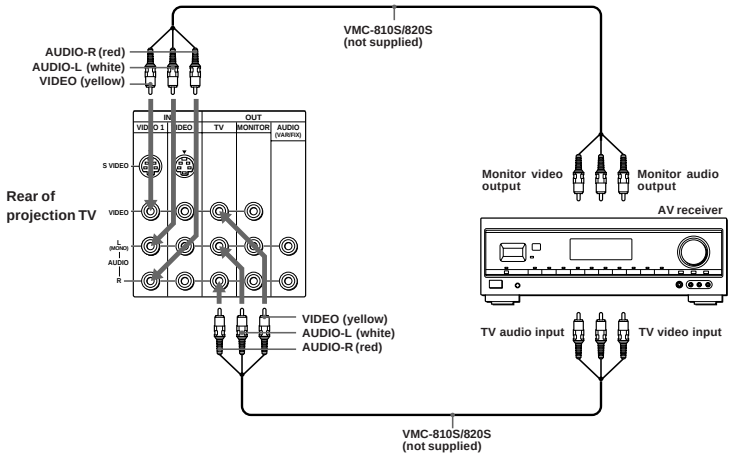
Note

- You can adjust the bass, treble, and balance, or select surround (page **33**) or an MTS (Multichannel TV Sound) mode (page **34**) with the supplied remote control.

Connecting an AV receiver

Connect an optional AV receiver to the VIDEO 1 IN jacks at the rear of the projection TV.

If your AV receiver has the TV input jacks, connect them to the TV OUT jacks at the rear of the projection TV.



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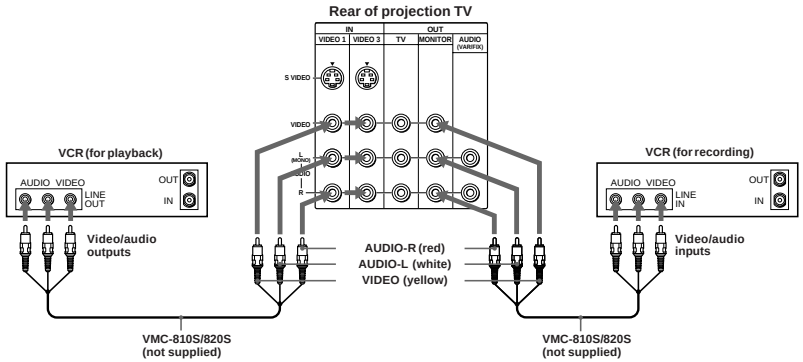
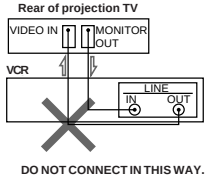
Connecting two VCRs for tape editing using MONITOR OUT

You can record input images displayed on the screen. This type of connection should be used only when you connect from the line input of one VCR, and from the line output of a second VCR.



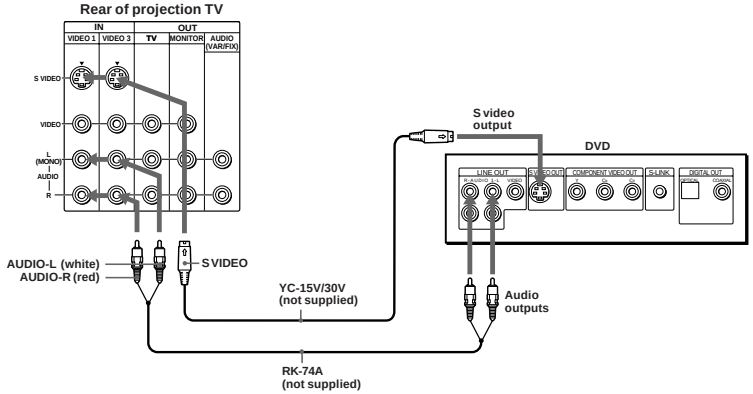
Notes

- Do not change the input signal while editing through MONITOR OUT, or the output signal will also change.
- You can use the S video jack to connect a VCR for playback and the composite video connector to connect a VCR for recording.
- When connecting a single VCR to the projection TV, do not connect the MONITOR OUT to the VCR's line input, while at the same time connecting from the projection TV's VIDEO IN connectors to the VCR's line output, as shown below.



Connecting a DVD player without component video output connectors

Connect VIDEO 1/3 connectors on the projection TV to line output connectors on the DVD player.



Notes

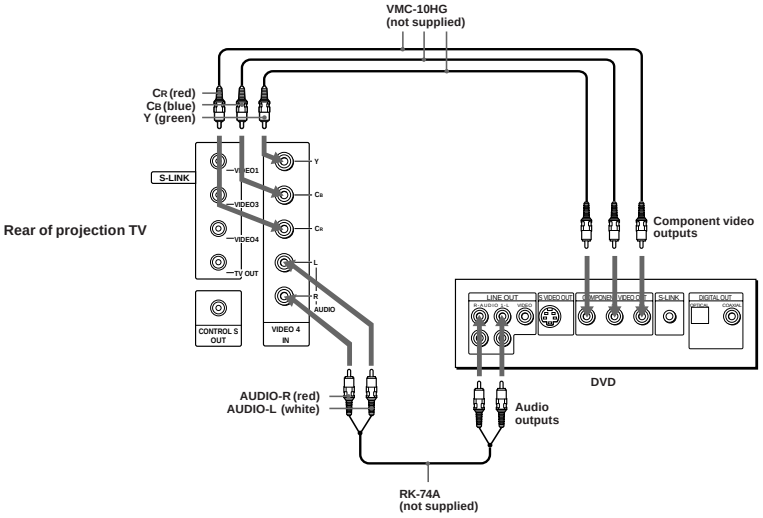
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.
- If your DVD player does not have S video output connector, use composite video connector for the video connection.
- Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connections.
- Because the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, reduce the SHARPNESS level in the VIDEO menu (see SHARPNESS on page **31**).

(continued)

EN

Connecting a DVD player with component video output connectors

Component video terminals Y / C_B / C_R provide a sharper, higher resolution picture by reducing the amount of signal processing thus creating a more accurate reproduction of the source.
If your DVD player has component video output connectors, connect them to VIDEO 4 IN on the projection TV in the following way.



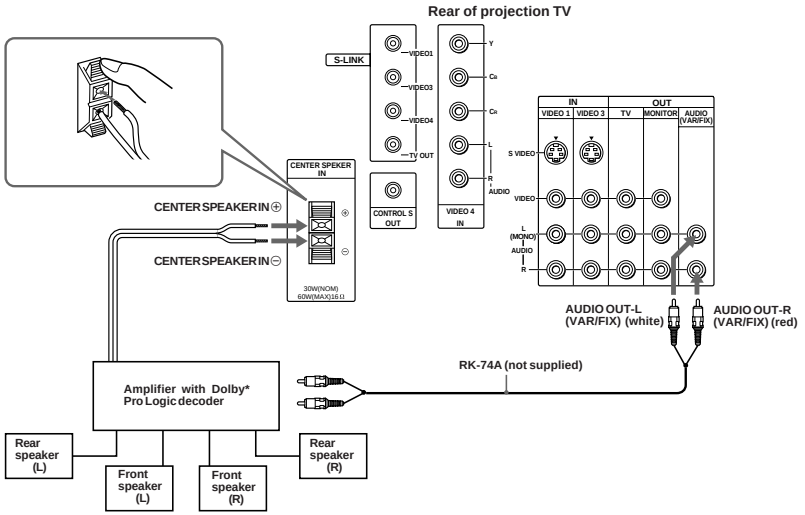
Notes

- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.
- When the DVD player is connected using VIDEO 4 IN, its MONITOR OUT signals cannot be output.
- Some DVD player connectors may be labeled Y, B-Y, and R-Y. In this case, connect Y (green) on the projection TV to Y on the DVD player, C_B (blue) to B-Y, and C_R (red) to R-Y.
- The jacks of this projection TV are colored in green (Y), blue (C_B), and red (C_R). If line output connectors of your DVD player have different colors, make connections according to their labels.
- Because the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, reduce the SHARPNESS level in the VIDEO menu (see SHARPNESS on page **31**).
- If the incorrect colors appear when using this component video input, recheck the connections they may be reversed.

Connecting an amplifier with Dolby Pro Logic decoder

If you use an amplifier with Dolby Pro Logic decoder instead of the projection TV'audio system, you can still use the projection TV's center speaker. See "Setting the speaker switch (SPEAKER)" on page **35**.

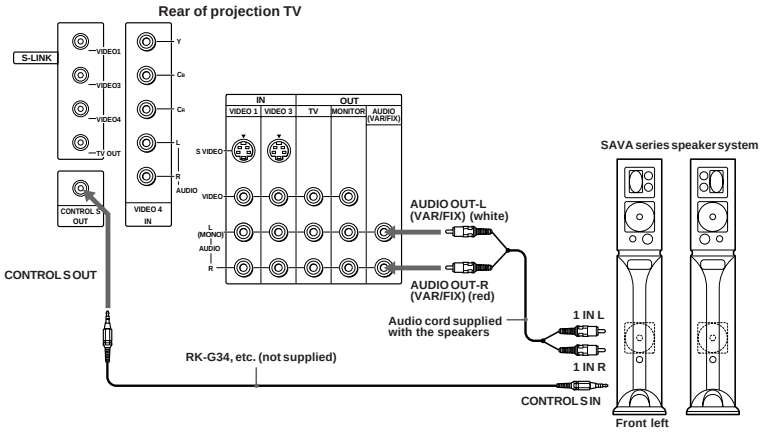
* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under Canadian patent number 1,037,877. "Dolby", the double-D symbol ◻◻ and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.



EN

Connecting a Sony SAVA series speaker system

If you have a Sony SAVA series speaker system, connect your speakers to the AUDIO (VAR/FIX) OUT jacks on the rear of the projection TV with the audio cable supplied with the speakers. You can take advantage of the speakers' Dolby Pro Logic surround system and super woofer mode, and control them with the supplied remote control. When connecting a Sony SAVA series speaker system, see page **35** for more information.



Using the S-Link function

S-Link function is a Sony innovation designed to make your Sony components work together. It allows you to switch automatically the TV's input mode to video when you press the play button on your Sony S-Link VCR. It also allows you to turn the VCR and TV off at the same time with the SYSTEM OFF button on the remote control (see page **44** for details).

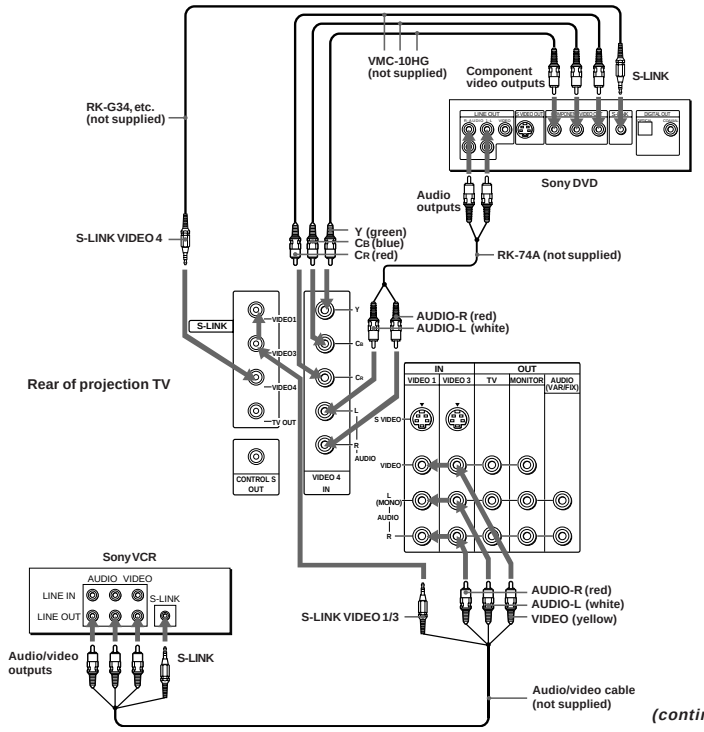
Notes

- The projection TV may malfunction if you connect the S-Link cable to the projection TV without connecting the other end of the cable to the VCR.
- When making the S-Link connection, be sure to insert all the connectors firmly.

Using the S-Link function without a Sony AV receiver

To make use of this function, be sure to connect the video equipment to the VIDEO IN and S-LINK connectors with the same label, that is, to VIDEO 1 IN and S-LINK VIDEO 1, to VIDEO 3 IN and S-LINK VIDEO 3, and to VIDEO 4 IN and S-LINK VIDEO 4.

Refer also to the Operating Instructions supplied with your VCR, DBS tuner, LD player, and other Sony video equipment for details.



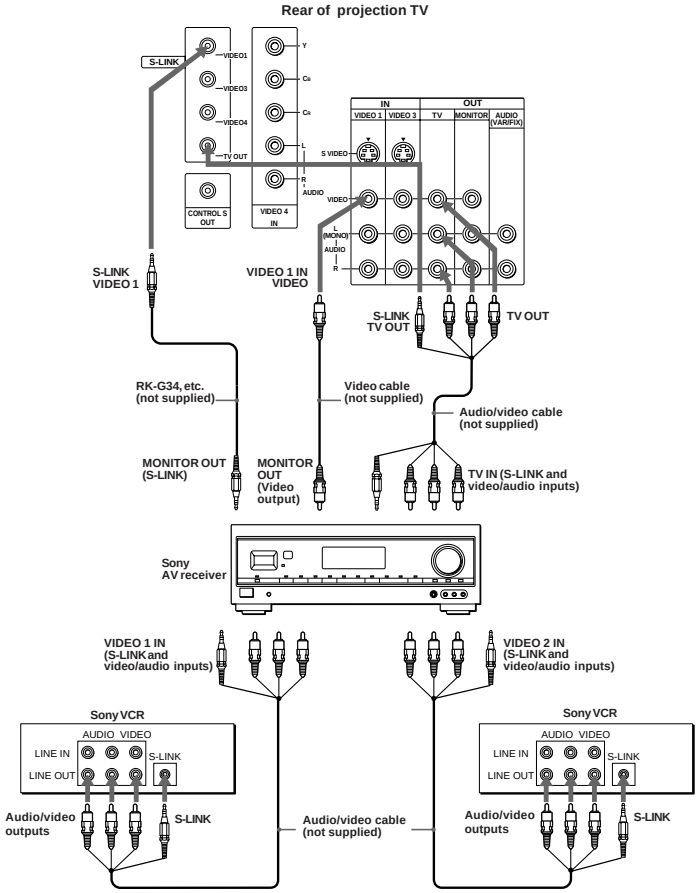
(continued)

EN

Using the S-Link function with a Sony AV receiver

When making S-Link connections through a Sony AV receiver, set the TV speaker switch to OFF, CENTER or SAVA SP, but never to ON (see page **35**).

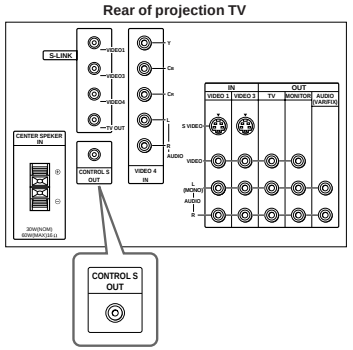
Refer also to the Operating Instructions supplied with your VCR, DBS tuner, LD player, AV receiver, and other Sony video equipment for details.



Connecting other Sony equipment with CONTROL S jack

This feature allows you to control your projection TV and other Sony equipment with one remote control.

To control other Sony equipment with the projection TV's remote control, connect the input of the equipment to CONTROL S OUT jack on the projection TV.



EN

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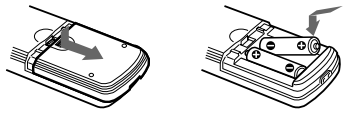
Step 3: Setting up the remote control

Inserting batteries

Insert two size AA (R6) batteries (supplied) by matching the + and – on the battery to the diagram inside the battery compartment.



Notes

- Under normal conditions, batteries will last up to six months. If the remote control does not operate properly or the indicators of the buttons on the remote control do not light up, the batteries may be worn out. When replacing batteries, replace both of them with new ones.
- Do not mix old batteries with new ones or mix different types of batteries together.
- If the electrolyte inside the battery should leak, wipe the contaminated area of the battery compartment with a cloth and replace the old batteries with new ones. To prevent the electrolyte from leaking, remove the batteries when you don't plan to use the remote control for a long period of time.
- Do not handle the remote control roughly. Do not drop it, step on it, or let it get wet.
- Do not place the remote control in direct sunlight, near a heater, or where the humidity is high.

Getting to know buttons on the remote control

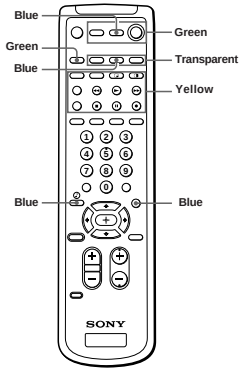
Names of buttons on the remote control are indicated in different colors to represent the available functions.

Button color

Transparent (light up) ..... TV / VCR / DBS / Cable box function buttons. Press the appropriate function button first to change the remote control's function.
Green ..... Buttons relevant to power operations.

Label color

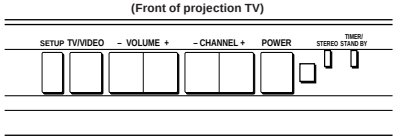
White ..... TV / VCR / DBS / Cable box operation buttons.
Yellow ..... PIP operation buttons.
Blue ..... DBS operation buttons.



Step 4: Setting up the projection TV automatically

(AUTO SET UP)

You can set up your projection TV easily by using the AUTO SET UP feature. It presets all the receivable channels, adjusts the convergence and changes the on-screen menu language. To set up the projection TV manually, see "Adjusting convergence" (page **23**), "Setting cable TV on or off" (page **24**), "Presetting channels" (page **25**) and "Changing the menu language" (page **25**).
If the projection TV is set to a video input, you cannot perform AUTO SET UP. Press TV / VIDEO so that a channel number appears.

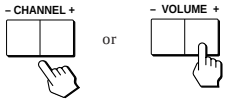


Before you start using AUTO SET UP, be sure to connect the antenna or cable to the projection TV (see page 6).

1 Press POWER to turn the projection TV on.

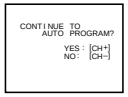
2 Press SETUP on the front of the projection TV.
AUTO SET UP screen appears.

3 Press CHANNEL +/– or VOLUME + to select the on-screen menu language.
If you prefer Spanish or French to English, you can change the on-screen menu language.



All of the menus will be set to the factory preset condition in the selected language.

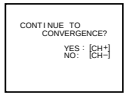
4 Press VOLUME – to start AUTO SET UP.



5 Press CHANNEL + to preset channels.

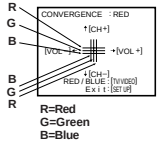
EN

"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the following menu appears. If the projection TV receives cable TV channels, CABLE is set to ON automatically.



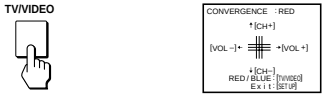
To exit AUTO PROGRAM
Press any button.

6 Adjust convergence.
(1) Press CHANNEL +.
The CONVERGENCE adjustment screen appears.

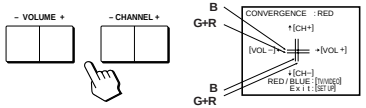


R=Red
G=Green
B=Blue

(2) Press TV / VIDEO to select RED or BLUE.

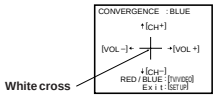


(3) Using CHANNEL + / – or VOLUME + / –, move the line until it converges with the center green line.



To move horizontal line up / down, press CHANNEL + / –.
To move vertical line right / left, press VOLUME + / –.

(4) Repeat steps (2) and (3) to adjust the other lines until all three lines converge and are seen as a white cross.



Note

- Using the AUX connector, press ANT first and make sure that "AUX" is displayed beside the channel number on the screen. Then follow the steps 2 to 6 above to perform AUTO SET UP.

To preview the main functions (DEMO)

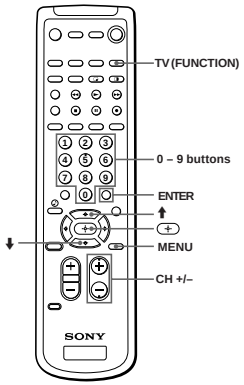
Press TV / VIDEO on the projection TV in step 4. The functions and menus are displayed one by one.

To exit DEMO

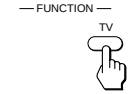
Press any button.

Erasing or adding channels

After AUTO SET UP, you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.



1 Press TV (FUNCTION).

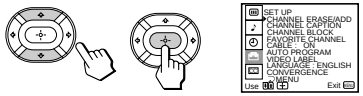


2 Press MENU.

The main menu appears.

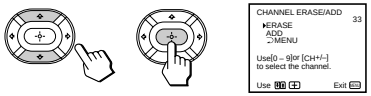
3 Press ↑ or ↓ to select 🧰, and press ⊕.

The SET UP menu appears.



4 Press ↑ or ↓ to select CHANNEL ERASE/ADD, and press ⊕.

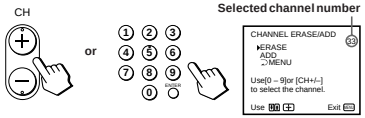
The CHANNEL ERASE / ADD menu appears.



5 Erase and/or add channels:

To erase an unwanted channel

(1) Make sure the cursor (▶) is beside ERASE.
(2) Press CH + / – or the 0 – 9 buttons to select the channel you want to erase, and press ENTER.



(3) Press ⊕.
The "–" indication appears beside the channel number, showing that the channel is erased from the preset memory.

To add a channel that you want

(1) Press ↑ or ↓ to move the cursor (▶) to ADD.
(2) Press the 0 – 9 buttons to select the channel you want to add, and press ENTER.

(3) Press ⊕.
The "+" indication appears beside the channel number, showing that the channel is added to the preset memory.

6 To erase and/or add other channels, repeat step 5.

7 Press MENU to return to the original screen.

Notes

- If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.
- Erasing and adding channels is also available for the AUX input.

Adjusting convergence (CONVERGENCE)

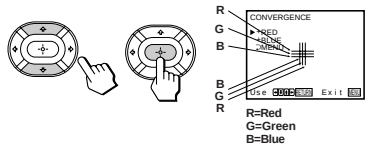
The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence.
You do not have to do this procedure if you perform AUTO SET UP (page **21**). Do this procedure only when you want to adjust it manually.

1 Press MENU.

2 Press ↑ or ↓ to select 🧰, and press ⊕.

3 Press ↑ or ↓ to select CONVERGENCE, and press ⊕.

The CONVERGENCE adjustment screen appears.



EN

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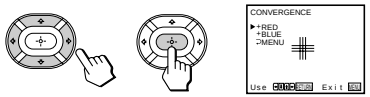
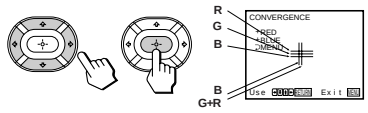
4 **Press ↑ or ↓ to move the cursor (▶) to the symbol showing the line you want to adjust, and press ⊕.**



+RED : Red vertical and horizontal line (left / right / up / down adjustment)
+BLUE : Blue vertical and horizontal line (left / right / up / down adjustment)

5 **Press ↑, ←, ↓, or → to move the line until it converges with the center green line, and press ⊕.**



To move	Press
Up	↑
Down	↓
Right	→
Left	←

6 **Repeat steps 4 and 5 to adjust the other lines until all three lines converge and are seen as a white cross.**

7 **Press MENU to return to the original screen.**

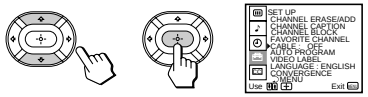
Setting cable TV on or off

If you have connected the projection TV to a cable TV system, set CABLE to ON (the factory setting). If not, set CABLE to OFF.
You do not have to do this procedure if you perform AUTO SET UP (page **21**). Do this procedure only when you want to set it manually.

1 **Press MENU.**

2 **Press ↑ or ↓ to select 🧰, and press ⊕.**

3 **Set CABLE to ON or OFF:**
(1) Press ↑ or ↓ to move the cursor (▶) to CABLE, and press ⊕.
(2) Press ↑ or ↓ to select ON or OFF, and press ⊕.



4 **Press MENU to return to the original screen.**

Note
- If CABLE appears in gray, the projection TV is set to a video input and you cannot select CABLE. Press ANT so that a channel number appears.

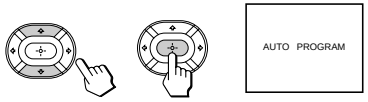
Presetting channels

You can preset TV channels easily by using the AUTO PROGRAM feature.
You do not have to do this procedure if you perform AUTO SET UP (page **21**). Do this procedure only when you want to set it manually.

1 **Press MENU.**

2 **Press ↑ or ↓ to select 🧰, and press ⊕.**

3 **Press ↑ or ↓ to select AUTO PROGRAM, and press ⊕.**



"AUTO PROGRAM" appears on the screen and the projection TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed.

4 **Press MENU to return to the original screen.**

To exit AUTO PROGRAM
Press any button.

Notes
- If the AUTO PROGRAM menu appears in gray, the projection TV is set to a video input and you cannot select AUTO PROGRAM. Press ANT so that a channel number appears.
- Presetting channels is also available for the AUX input.

Changing the menu language

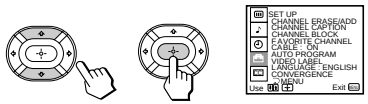
If you prefer Spanish or French to English, you can change the menu language.
You do not have to do this procedure if you select the language during AUTO SET UP (page **21**).
Do this procedure only when you want to set it manually.

1 **Press MENU.**

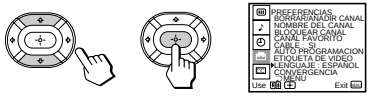
2 **Press ↑ or ↓ to select 🧰, and press ⊕.**

3 **Press ↑ or ↓ to select LANGUAGE, and press ⊕.**

EN



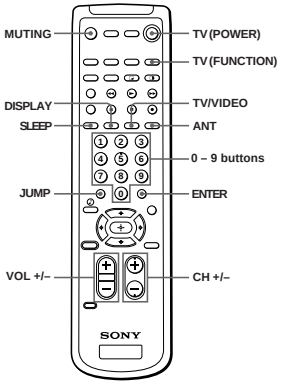
4 **Press ↑ or ↓ to select your favorite language, "ENGLISH", "ESPAÑOL", or "FRANÇAIS" and press ⊕.**



5 **Press MENU to return to the original screen.**

Note
- Certain parts of the Spanish or French menus remain in English.

Watching the TV



1 Press TV (POWER) to turn on the projection TV.

The TIMER/STANDBY indicator flashes until the picture appears.

If "VIDEO" appears on the screen, press ANT so that a channel number appears.

2 Press TV (FUNCTION).

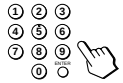
Once you press TV (FUNCTION), the projection TV function is set unless another function button is pressed.

3 Select the channel you want:

To select a channel directly

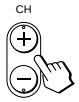
Press the 0 – 9 buttons, and press ENTER.

For example, to select channel 10, press 1, 0 and ENTER.



To scan through channels

Press CH +/– until the channel you want appears.



The channel can also be selected without pressing ENTER.

4 Press VOL +/– to adjust the volume.

Switching quickly between two channels

You can use the JUMP button to switch or "jump" back and forth between two channels.

Press JUMP.

Pressing JUMP again switches the channel back to the one you selected last.

Note

- You cannot jump to channels you scanned through using the CH +/– buttons.

Muting the sound

Press MUTING.

"MUTING" appears on the screen.

To restore the sound, press MUTING again, or press VOL +.

Displaying on-screen information

Press DISPLAY repeatedly until the desired display appears.

Each time you press DISPLAY, the display changes as follows:

Status display* → XDS ON** → CC 1 ON*** → DISPLAY OFF → Status display*

* Channel number, the current time, channel caption (if set), and MTS mode (if SAP is selected) are displayed. SAP indication disappears after three seconds.

** Some programs are broadcast with XDS (Extended Data Service) which shows a network name, program name, program type, program length, call letters, and time of the show. When you select XDS with the DISPLAY button, this information will be displayed on the screen if the broadcaster offers this service.

*** Some programs are broadcast with Caption Vision. When you select Caption Vision with the DISPLAY button, Caption Vision will be displayed on the screen if the broadcaster offers this service. (See page **42** for selecting Caption Vision.)

To cancel the display, press DISPLAY repeatedly until "DISPLAY OFF" appears. "DISPLAY OFF" goes off after three seconds.

Setting the Sleep Timer

The projection TV stays on for the length of time you specify and then shuts off automatically.

Press SLEEP repeatedly until the time (minutes) you want appears.

Each time you press SLEEP, the time changes as follows:

30 → 60 → 90 → SLEEP OFF → 30

To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn off the projection TV.

Watching a video input picture

Press TV/VIDEO repeatedly until the desired video input appears.

Each time you press TV/VIDEO, the display changes as follows:

TV → VIDEO 1 → VIDEO 2 → VIDEO 3 → VIDEO 4 → TV

To return to the TV picture, press ANT so that a channel number appears.

Note

- When the video label for VIDEO 4 is set to SKIP, the display changes skipping the VIDEO 4 connection (see page **41**).

EN

Changing the VHF/UHF input to the AUX input

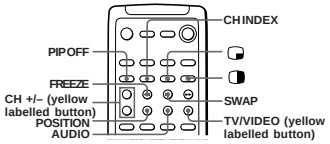
Press ANT.

"AUX" appears beside the channel number.

Pressing ANT again switches back to the VHF/UHF input.

Watching two programs at one time — PIP/P&P (Twin View™)/CH INDEX

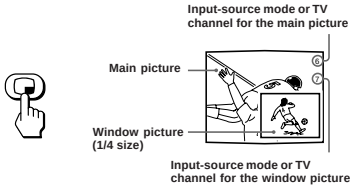
You can watch both the main / right picture and a window / left picture simultaneously using the Picture-in-Picture (PIP) or the Picture-and-Picture (Twin View™) feature.



Use the yellow labelled buttons for PIP operations.

Displaying a window picture (PIP)

Press .

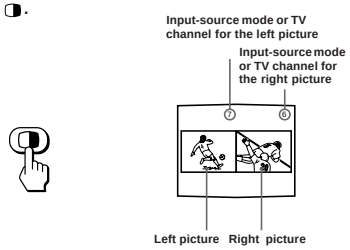

Input-source mode or TV channel for the main picture
Main picture
Window picture (1/4 size)
Input-source mode or TV channel for the window picture

Press repeatedly to display a smaller window picture.
Each time you press , the size of the window picture changes as follows: 1/4 size → 1/9 size → 1/16 size.

To remove the window picture, press PIP OFF.

Displaying a left picture (P&P)

Press .


Input-source mode or TV channel for the left picture
Input-source mode or TV channel for the right picture
Left picture
Right picture

To restore the normal picture, press PIP OFF.

Notes
- If the main / right picture is not receiving an image, the window / left picture may become a noisy picture.
- The window / left picture sound is also output from the AUDIO (VAR / FIX) OUT jacks when you listen to it.

Changing the window/left picture input mode

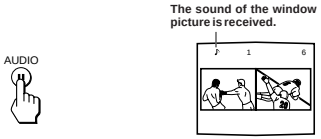
Press TV/VIDEO (yellow labelled button) in PIP or P&P mode to select the input mode.
Each time you press TV / VIDEO (yellow labelled button), "TV", "VIDEO 1", "VIDEO 2", "VIDEO 3", and "VIDEO 4" appear in sequence.

A window / left picture will appear in the same input mode as the last time you used PIP.

Notes
- If you connect your VCR without a cable box, your PIP input source is a VCR. If you connect your VCR with a cable box, your PIP input source is a VCR or cable box.
- When the video label for VIDEO 4 is set to SKIP, "VIDEO 4"does not appear on the display.

Listening to the sound of the window/ left picture

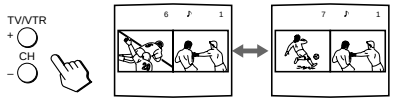
Press AUDIO in PIP or P&P mode.
The ♪ display appears above the window / left picture for a few seconds, indicating that the window / left picture sound is being received.



To restore the main picture sound, press AUDIO again. The ♪ display moves to the main picture channel number.

Changing TV channels in the window/ left picture

Press CH +/– (yellow labelled button) in PIP or P&P mode.

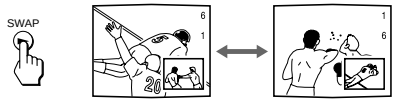


Changing the position of the window picture

Press POSITION in PIP mode.
Each time you press POSITION, the window picture will move counterclockwise on the screen.

Swapping the main/right and window/ left pictures

Press SWAP in PIP or P&P mode.
Each time you press SWAP, the images and sound from the main / right and window / left pictures switch places with another.



Note
- The channels being received through the AUX connector cannot be displayed as a window picture.

Watching multiple TV channels at one time (CH INDEX)

EN

You can display all the preset channels in sequence.

1 Press CH INDEX.
The main picture is displayed in the center with a pink frame and 12 window pictures are displayed around the main picture.

Each time you press CH INDEX, the 12 window pictures will rotate and a new picture will appear.

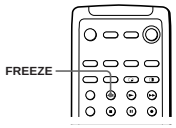
2 Press ↑, ←, ↓ or → to move the pink frame to the channel you want to watch, and press ⊕.
The selected channel appears on the screen.

To display eight favorite channels, press ⊕.

To return to the normal picture, press PIP OFF.

Freezing the picture (FREEZE)

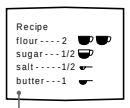
The FREEZE feature is useful when you want to write down an information such as a recipe from a cooking program, a displayed address, or a phone number.



Press FREEZE.

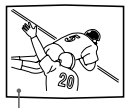
The frozen picture differs depending on the current display mode.

Normal mode



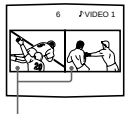
The current picture freezes.

PIP mode



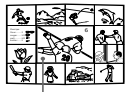
The main picture freezes and the window picture disappears.

P&P mode



Both pictures freeze.

CH INDEX mode

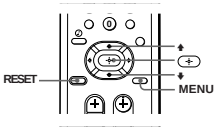


Only the main picture freezes.

To cancel the frozen picture, press FREEZE again.

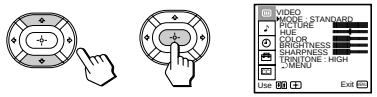
Adjusting the picture (VIDEO)

When watching TV programs, you can adjust the picture to suit your taste.
You can adjust the picture of video input(s) as well.



1 Press MENU.

2 Press ↑ or ↓ to select , and press .



3 Select the item you want to adjust.
For example:
(1) To adjust the brightness, press ↑ or ↓ to move the cursor (▶) to BRIGHTNESS.

(2) Press .

4 Adjust the selected item:
(1) Press ↑, ←, ↓, or → to adjust the item.

(2) Press .
The new setting appears in the VIDEO menu.

For details on each item, see "Description of adjustable items" below.

5 To adjust other items, repeat steps 3 and 4.

6 Press MENU to return to the original screen.

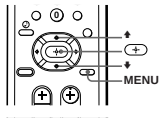
Description of adjustable items

Item	Press ← or ↓ to	Press → or ↑ to
PICTURE	Decrease picture contrast and give soft color.	Increase picture contrast and give vivid color.
HUE	Make picture tones become purplish.	Make picture tones become greenish.
COLOR	Decrease color intensity.	Increase color intensity.
BRIGHTNESS	Darken the picture.	Brighten the picture.
SHARPNESS	Soften the picture.	Sharpen the picture.

To restore the factory settings
Press RESET after displaying and selecting the VIDEO menu.
All of the settings are restored to the factory settings.

Adjusting the color temperature (TRINITONE)

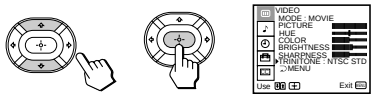
The TRINITONE feature controls the color temperature, permitting white balance preference adjustment without affecting skin tones.



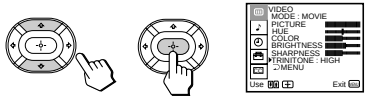
1 Press MENU.

2 Press ↑ or ↓ to select and press .

3 Press ↑ or ↓ to select TRINITONE and press .



4 Press ↑ or ↓ to select NTSC STD, MEDIUM, or HIGH and press .



Choose	To
HIGH	a cool (bluish) white.
MEDIUM	a neutral white.
NTSC STD	a warm (reddish) white.

EN

Selecting the video mode (VIDEO)

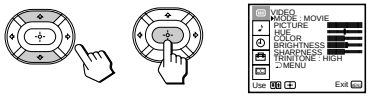
The video mode feature allows you to choose four different modes of picture settings. Choose the one that best suits the type of program that you want to watch.

1 **Press MENU.**

2 **Press ↑ or ↓ to select , and press .**

3 **Press ↑ or ↓ to select MODE, and press .**

4 **Press ↑ or ↓ to select VIVID, STANDARD, MOVIE, or SPORTS mode, and press .**



Choose	To
VIVID	Receive a highly contrasted, sharp picture.
STANDARD	Receive a standard picture.
MOVIE	Receive a finely detailed picture.
SPORTS	Receive a colorful, bright picture.

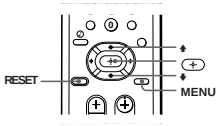
5 **Press MENU to return to the original screen.**

Note

- The settings for these modes can be adjusted in the VIDEO menu.

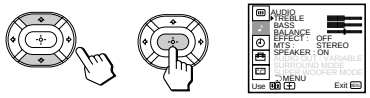
Adjusting the sound (AUDIO)

You can adjust the quality of the TV sound to suit your taste. You can adjust the sound of the video input(s) as well.



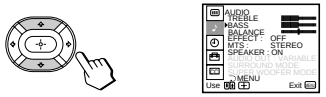
1 **Press MENU.**

2 **Press ↑ or ↓ to select ♪, and press .**

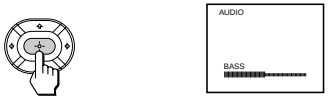


3 **Select the item you want to adjust.**
For example:

(1) To adjust bass, press ↑ or ↓ to move the cursor (▶) to BASS.



(2) Press .



4 **Adjust the selected item:**

(1) Press ↑, ←, ↓, or → to adjust the item.

(2) Press .

The new setting appears in the AUDIO menu.

For details on each item, see "Description of adjustable items" below.

5 **To adjust other items, repeat steps 3 and 4.**

6 **Press MENU to return to the original screen.**

Description of adjustable items

Item	Press ↓ or ← to	Press ↑ or → to
TREBLE	Decrease the treble response.	Increase the treble response.
BASS	Decrease the bass response.	Increase the bass response.
BALANCE	Emphasize the left speaker's volume.	Emphasize the right speaker's volume.

To restore the factory settings

Press RESET after displaying and selecting the AUDIO menu.

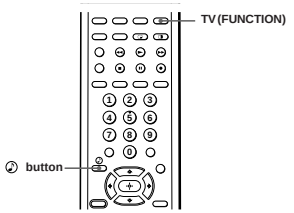
All of the settings are restored to the factory settings.

Note

- When SPEAKER (page **35**) is OFF and AUDIO OUT (page **36**) is in the FIXED condition, the volume, TREBLE, BASS, and BALANCE cannot be adjusted.

Using audio effect (EFFECT)

Using the (audio effect) button



1 **Press TV (FUNCTION).**

2 **Press .**

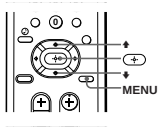
Each time you press the button, the display changes as follows:

SRS → 3D MONO → EFFECT OFF

Choose	To
SRS	When the program's audio signal is stereo or encoded, SRS expands the material and embraces you with dynamic three-dimensional sound.
3D MONO	Recieve monaural sound with a surrond-like effect.
EFFECT OFF	Cancel audio effect.

EN

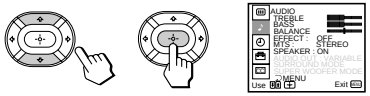
Using the menu to set audio effect



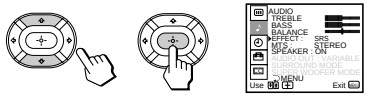
1 **Press MENU.**

2 **Press ↑ or ↓ to select ♪, and press ⊕.**

3 **Press ↑ or ↓ to select EFFECT, and press ⊕.**



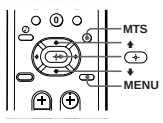
4 **Press ↑ or ↓ to select SRS, 3D MONO or OFF, and press ⊕.**



5 **Press MENU to return to the original screen.**

Selecting stereo or bilingual programs (MTS)

The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound or Second Audio Programs (SAP) of your choice. The initial setting is stereo sound (STEREO).



Press MTS repeatedly to select STEREO, SAP, or MONO.

STEREO → SAP → MONO

Choose	To
STEREO	Listen to stereo sound. The STEREO indicator on the projection TV lights up when a stereo broadcast is received.
SAP	Listen to bilingual programs. There is no sound when the SAP signal is not broadcasting.
MONO	Listen to monaural sound. Reduce noise during stereo broadcasts.

Note

• Stereo and SAP sounds are subject to program sources.

To set MTS using the menu

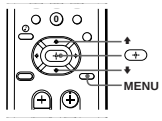
1 Press MENU.
2 Press ↑ or ↓ to select ♪, and press ⊕.
3 Press ↑ or ↓ to select MTS, and press ⊕.
4 Press ↑ or ↓ to select STEREO, SAP, or MONO.
5 Press MENU to return to the original screen.

Setting the speaker switch (SPEAKER)

You may switch off the projection TV speakers when, for example, you want to listen to the sound through a stereo system.

If you connect an amplifier with Dolby Pro Logic decoder to the CENTER SPEAKER IN terminals, you can use the projection TV speakers as center speaker. After making the connection (page **15**), set SPEAKER to CENTER.

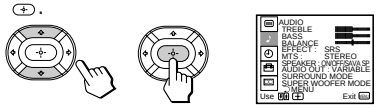
If you connect the Sony SAVA series speaker system to the AUDIO (VAR/FIX) OUT connectors, you can take advantage of the speakers' surround sound and super woofer mode. After making the connections (page **16**), set SPEAKER to SAVA SP, then adjust SURROUND MODE or SUPER WOOFER MODE.



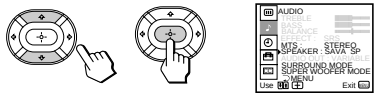
1 **Press MENU.**

2 **Press ↑ or ↓ to select ♪, and press ⊕.**

3 **Press ↑ or ↓ to select SPEAKER, and press ⊕.**



4 **Press ↑ or ↓ to select ON, OFF, CENTER or SAVA SP, and press ⊕.**



5 **Press MENU to return to the original screen.**

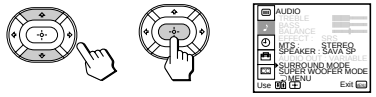
Choose	To
ON	Listen to the sound from the projection TV.
OFF	Turn off the projection TV speaker sound and listen to the projection TV's sound solely through the audio system speakers.
CENTER	Use the projection TV center speakers as the center speaker in another surround audio system.
SAVA SP	Turn off the projection TV speaker sound and listen to the projection TV's sound through the Sony SAVA series speaker system. You can adjust volume, muting, surround modes, and super woofer mode with the remote control supplied with the projection TV.

To select surround sound or super woofer mode of the SAVA speaker system

EN

After setting SPEAKER to SAVA SP, follow the procedure below.

Press ↑ or ↓ to select SURROUND MODE or SUPER WOOFER MODE, and press ⊕.
For details on each option, refer to the operating instructions of the speaker system.

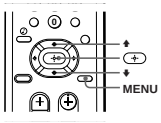


Note

• This feature is only for Sony SAVA speaker system with an operation capability for KP-53V75C.

Setting audio out (AUDIO OUT)

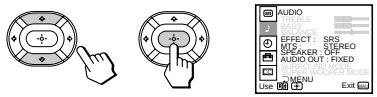
You can change AUDIO OUT to VARIABLE or FIXED when SPEAKER is set to OFF.
AUDIO OUT is variable when SPEAKER is set to ON.



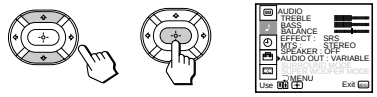
1 **Press MENU.**

2 **Press ↑ or ↓ to select ♪, and press ⊕.**

3 **Press ↑ or ↓ to select AUDIO OUT, and press ⊕.**



4 **Press ↑ or ↓ to select VARIABLE or FIXED, and press ⊕.**



VARIABLE: Sound output varied according to the projection TV settings. You can adjust the volume, bass, treble, and balance.

FIXED: Sound output is always fixed to a certain level. The volume, bass, treble, and balance are also fixed to the factory settings.

5 **Press MENU to return to the original screen.**

Note

• If AUDIO OUT appears in gray, set SPEAKER to OFF.

Setting daylight saving time (DAYLIGHT SAVING)

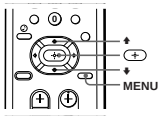
If your area uses daylight saving time, change DAYLIGHT SAVING setting depending on the season, before setting the current time.

Daylight saving start

• After the first Sunday in April, set DAYLIGHT SAVING to YES. Current time setting (right column) automatically moves one hour ahead.

Daylight saving end

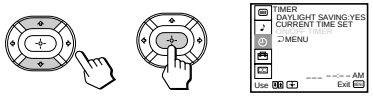
• After the last Sunday in October, set DAYLIGHT SAVING to NO. Current time setting automatically moves one hour back.



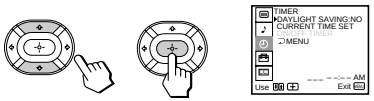
1 **Press MENU.**

2 **Press ↑ or ↓ to select 🕘, and press ⊕.**

3 **Press ↑ or ↓ to select DAYLIGHT SAVING, and press ⊕.**



4 **Press ↑ or ↓ to select YES or NO, and press ⊕.**

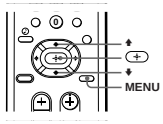


Choose	To
YES	Set for daylight saving start.
NO	Set for daylight saving end.

5 **Press MENU to return to the original screen.**

Setting the clock (CURRENT TIME SET)

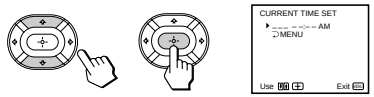
Setting the clock enables you to turn the projection TV on and off with the timer. Make sure to set daylight saving time first.



1 **Press MENU.**

2 **Press ↑ or ↓ to select 🕘, and press ⊕.**

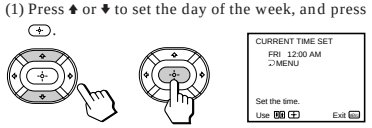
3 **Press ↑ or ↓ to select CURRENT TIME SET, and press ⊕.**



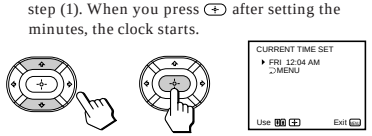
4 **Make sure the cursor (▶) is to the left of "--:-- AM", and press ⊕.**

5 **Set the current day of the week and time.**

(1) Press ↑ or ↓ to set the day of the week, and press ⊕.



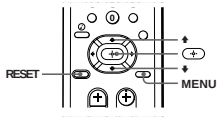
(2) Set the hour and minutes in the same way as in step (1). When you press ⊕ after setting the minutes, the clock starts.



6 **Press MENU to return to the original screen.**

Setting the timer to turn the projection TV on and off (ON/OFF TIMER)

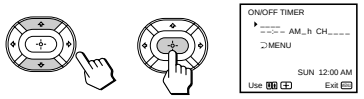
You can set the projection TV to turn on and off at the times you specify. Make sure the clock is set correctly. If it is not, set the clock first (left column).



1 **Press MENU.**

2 **Press ↑ or ↓ to select 🕘, and press ⊕.**

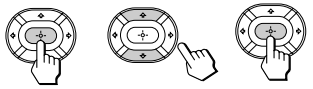
3 **Press ↑ or ↓ to select ON/OFF TIMER, and press ⊕.**



4 **Press ⊕ and enter the ON/OFF TIMER setting.**

(1) Press ↑ or ↓ to set the day(s), and press ⊕.

Each time you press ↑ or ↓, the days cycle as follows:
EVERY SUN–SAT→EVERY MON–FRI→SUNDAY→...→SATURDAY→EVERY SUNDAY→...→EVERY SATURDAY



(continued)

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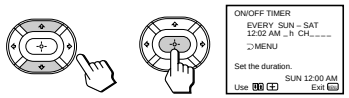
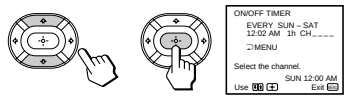
(2) Press ↑ or ↓ to set the time (hour then minutes) that you want to turn on the projection TV, and press ⊕.



(3) Press ↑ or ↓ to set the time duration, and press ⊕.

Each time you press ↑, the time duration increases by one hour up to a maximum of six hours.



(4) Press ↑ or ↓ to select the channel, and press ⊕.

The TIMER / STANDBY indicator on the projection TV lights up.

5 To set the other program, press ⊕, and repeat step 4.

6 Press MENU to return to the original screen.

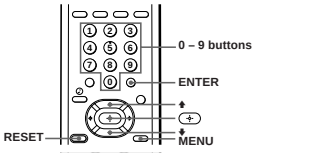
One minute before the projection TV turns off, the message "TV will turn off soon." is displayed on the screen.

To cancel the timer
In step 3 or 4, press RESET.

Note
- If you unplug the projection TV or a power interruption occurs, the ON / OFF TIMER setting will be erased. Reset the current time, then set the timer.

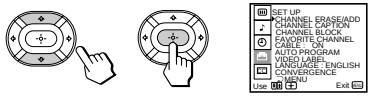
Customizing the channel names (CHANNEL CAPTION)

You can add a caption for up to 12 channels. This feature allows you to easily identify which channel you are watching. You can make your own caption.

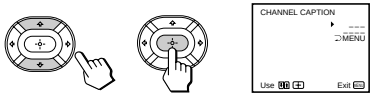


1 Press MENU.

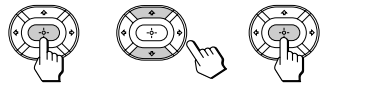
2 Press ↑ or ↓ to select 🖷, and press ⊕.



3 Press ↑ or ↓ to select CHANNEL CAPTION, and press ⊕.

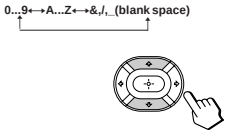


4 Press ⊕ and press ↑ or ↓ to select the channel that you want to caption, and press ⊕.



5 Enter the letters (up to four) to caption the channel:
(1) Press ↑ or ↓ to select the first letter.

Each time you press ↑ or ↓, the letter changes as follows:



(2) Press ⊕.

(3) Repeat steps (1) and (2) to select the remaining letters, and press ⊕.

6 Repeat steps 4 and 5 to caption other channels.

7 Press MENU to return to the original screen.

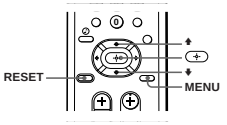
After you customize the channel, the channel caption appears green.

To erase a caption
In step 5, press RESET.

Notes
- If the CHANNEL CAPTION menu appears in gray, the projection TV is set to a video input, and you cannot select CHANNEL CAPTION. Press ANT so that a channel number appears.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.
- The channel caption feature is not available for the AUX input.

Blocking out a channel (CHANNEL BLOCK)

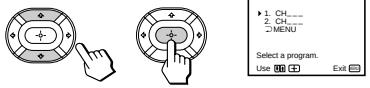
The channel block feature allows you to prevent children from watching unsuitable programs. You can block out two channels.



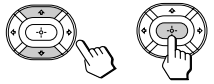
1 Press MENU.

2 Press ↑ or ↓ to select 🖷, and press ⊕.

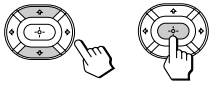
3 Press ↑ or ↓ to select CHANNEL BLOCK, and press ⊕.



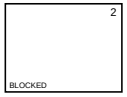
4 Press ↑ or ↓ to select program 1 or 2, and press ⊕.



5 Press ↑ or ↓ to select the channel which you want to block out, and press ⊕.



6 Press MENU to return to the original screen.
When you select the blocked channel, the message "BLOCKED" appears on the screen.



To cancel a CHANNEL BLOCK setting
In step 4 or 5, press RESET.

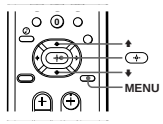
Note
- Once you use CHANNEL BLOCK, Caption Vision and XDS of the blocked channel and the selected channel output from MONITOR OUT are also blocked out.

EN

Setting your favorite channels
(FAVORITE CHANNEL)

The favorite channel feature allows your projection TV to memorize your favorite channels easily.
If you set to AUTO, the last eight channels you selected with the 0 – 9 buttons are automatically set as your favorite channels. If you want to input your own selection of channels, set to MANUAL.

Setting your favorite channels

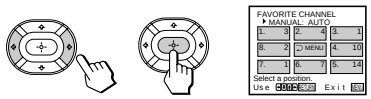


1 Press MENU.

2 Press ↑ or ↓ to select 🖴, and press ⊕.

3 Press ↑ or ↓ to select FAVORITE CHANNEL, and press ⊕.

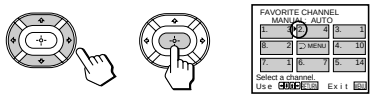
4 Press ⊕ and press ← or → to select AUTO or MANUAL, and press ⊕.



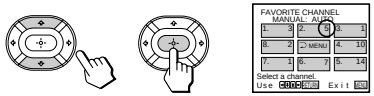
If you select AUTO, skip steps 5 to 7.
The last eight channels you selected with the 0 – 9 buttons are automatically set as your favorite channels.

If you select MANUAL, the favorite channel numbers become white, indicating that favorite channels can be entered.

5 Press ↑, ←, ↓ or → to select a favorite channel number, and press ⊕.



6 Press ↑ or ↓ to select the channel that you want to set as your favorite channel, and press ⊕.



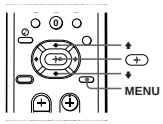
7 To set the other favorite channels, repeat steps 5 and 6.

8 Press MENU to return to the original screen.

Notes

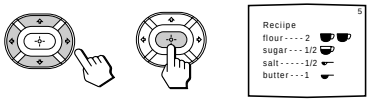
- If more than 90 seconds elapse after you press another button, the menu disappears automatically.
- The favorite channel feature is not available for the AUX input.

Selecting your favorite channel



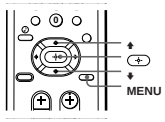
1 Press ⊕.
The picture of the current channel is displayed in the center with a pink frame and the eight favorite channels are displayed around it.

2 Press ↑, ←, ↓ or → to move the pink frame to the channel you want to watch, and press ⊕.
The selected channel appears on the screen.



Setting video labels
(VIDEO LABEL)

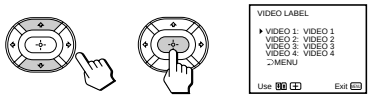
The video label feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 as VHS.



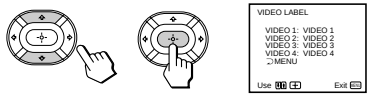
1 Press MENU.

2 Press ↑ or ↓ to select 🖴, and press ⊕.

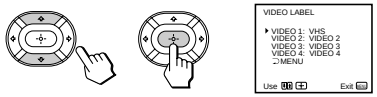
3 Press ↑ or ↓ to select VIDEO LABEL, and press ⊕.



4 Press ↑ or ↓ to select the input mode you want to label, and press ⊕.



5 Press ↑ or ↓ to select the label, and press ⊕.



Each time you press ↑ or ↓, the label changes as follows:

VIDEO 1

VIDEO 1 ↔ VHS ↔ 8 mm ↔ BETA
↕ ↕
DBS ↔ DVD ↔ S VIDEO ↔ LD

VIDEO 2

VIDEO 2 ↔ VHS ↔ 8 mm ↔ BETA
↕ ↕
DBS ↔ DVD ↔ S VIDEO ↔ LD

VIDEO 3

VIDEO 3 ↔ VHS ↔ 8 mm ↔ BETA
↕ ↕
DBS ↔ DVD ↔ S VIDEO ↔ LD

VIDEO 4

VIDEO 4 ↔ DVD ↔ SKIP*
↑ ↓

* The projection TV will skip the VIDEO 4 connection when you scan through video sources pressing the TV / VIDEO button.

6 Repeat steps 4 and 5 to label other input modes.

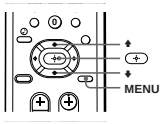
Note

- If more than 90 seconds elapse before you press another button, the menu disappears automatically.

EN

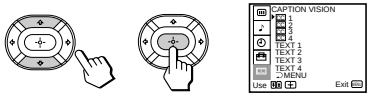
Setting Caption Vision (CAPTION VISION)

Some programs are broadcast with Caption Vision. To display Caption Vision, select either CC1, CC2, CC3, CC4, TEXT1, TEXT2, TEXT3, or TEXT4 from the menu. CC1, CC2, CC3, or CC4 shows you on-screen version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1, TEXT2, TEXT3, or TEXT4 shows you on-screen information presented using either half or the whole screen. It is not usually related to the program.

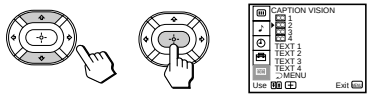


1 **Press MENU.**

2 **Press ↑ or ↓ to select CC, and press ⊕.**



3 **Press ↑ or ↓ to select the caption type, and press ⊕.**



4 **Press MENU to return to the original screen.**

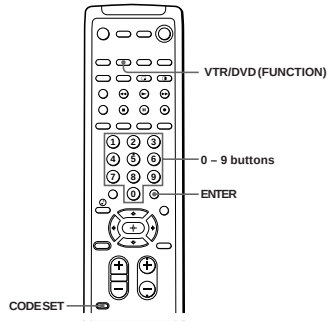
To display Caption Vision
Press DISPLAY. (See page **27** for details.)

Notes
- Poor reception of TV programs can cause errors in Caption Vision and XDS.
  Captions may appear with a white box or other errors instead of a certain word.
- XDS, Caption Vision, and the status display cannot be used at the same time.
- For details on XDS, see page **27**.

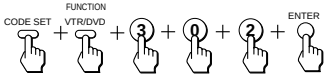
Operating video equipment

You can use the supplied remote control to operate Sony or non-Sony video equipment that has an infrared remote sensor. For this operation, set the manufacturer's code number.

Setting the manufacturer's code



Press the CODE SET, VTR/DVD (FUNCTION), and 0 – 9 buttons to enter the manufacturer's code number (see the chart on page 43), then press ENTER.
For example, to operate a Sony 8 mm VCR, press CODE SET, VTR/DVD (FUNCTION), 3, 0, 2, and ENTER.



VCR manufacturer code numbers

Manufacturer	Code number
Sony	301, 302, 303
Aiwa	338
Audio Dynamic	314, 337
Bell & Howell (M. Wards)	330, 343
Brocsonic	319
Canon	309, 308
Citizen	332
Craig	315, 302, 332
Curtis Mathis	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318
Fisher	330, 334, 335, 333
Funai	338
General Electric	329, 304, 309
Goldstar	332
Hitachi	306, 304, 305
Instant Replay	309, 308
JC Penny	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 333, 334, 330, 335
Magnavox	308, 309
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi / MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309
Pioneer	308
Quasar	308, 309
RCA / PROSCAN	304, 305, 308, 309, 311, 312, 313
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Singer	315
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Wards)	338, 327
Sylvania	308, 309, 338
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	330, 314, 336, 337
Zenith	331

MDP manufacturer code numbers

Manufacturer	Code number
Sony	701
Kenwood	707
Magnavox	703
Maranz	702
Mitsubishi	702
Panasonic	704
Philips	703
Pioneer	702
RCA	702
Sanyo	706
Sharp	705
Yamaha	703

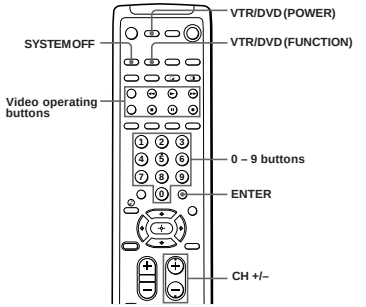
DVD manufacturer code numbers

Manufacturer	Code number
Sony	751

Notes
- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied remote control. This is because your equipment may use a code that is not included with this remote control. In this case, please use the equipment's own remote control unit.
- The code numbers for Sony equipment are assigned at the factory as follows:
  VHS VCR — 301 (preset code for the supplied remote control)
  8 mm VCR — 302
  Beta, ED Beta VCRs — 303
- Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code number may revert to the factory setting and must be reset.

EN

Operating video equipment



Use the video operating buttons on the remote control to operate the video equipment. Press VTR/DVD (FUNCTION) before operating the video equipment.

Operating a VCR	Buttons on the remote control
To turn on or off	Press VTR/DVD (POWER).
To select a channel directly	Press the 0 – 9 buttons.
To change channels	Press CH +/–.
To record	Press ► while pressing ●. First release ►, then release ●.
To play	Press ►.
To stop	Press ■.
To fast forward	Press ▶▶.
To rewind the tape	Press ◀◀.
To pause	Press ❚❚. To resume normal playback, press again.
To search the picture forward or backward	Press ▶▶ or ◀◀ during playback. To resume normal playback, release the button.
To change input mode	Press TV/VTR.

Operating an MDP	Buttons on the remote control
To turn on or off	Press VTR/DVD (POWER).
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. To resume normal playback, press again.
To search the picture forward or backward	Keep pressing ▶▶ or ◀◀ during playback. To resume normal playback, release the button.
To search the chapter forward and backward	Press CH +/–.

Operating an DVD	Buttons on the remote control
To turn on or off	Press VTR/DVD (POWER).
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. To resume normal playback, press again.
To search the picture forward or backward	Keep pressing ▶▶ or ◀◀ during playback. To resume normal playback, release the button.

Note

- If the video equipment does not have a certain function, the corresponding button on this remote control will not operate.

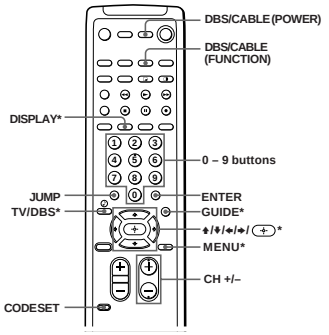
Turning off the system

You can turn off the projection TV and Sony equipment with the S-Link function, such as a VCR, together when you make the S-Link connection (see pages **17** and **18** for the connection).

Press SYSTEM OFF.

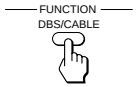
Operating a cable box or DBS receiver

You can program the supplied remote control to operate a cable box or DBS receiver. Follow the procedures below to set the manufacturer's code number in the remote control.

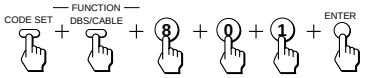


* The TV/DBS, GUIDE, DISPLAY, ♠/♦/♣/♥/⊕, and MENU buttons can be used only with a DBS receiver.

1 Turn off the equipment you want to set up, and press DBS/CABLE (FUNCTION).



2 Press the CODE SET, DBS/CABLE (FUNCTION), and 0 – 9 buttons to enter the manufacturer's code number (see the chart on the right column), then press ENTER. For example, to program your remote control to operate a Sony DBS receiver, press CODE SET, DBS/CABLE (FUNCTION), 8, 0, 1, and ENTER.



3 Press DBS/CABLE (POWER) to turn on the cable box or DBS receiver.

4 Use the cable box/DBS control buttons to check if the code number works.
For example, to operate a cable box or DBS receiver, you can use the DBS/CABLE (POWER), JUMP, CH +/–, 0 – 9 and ENTER buttons.

Note

- If the cable box or DBS receiver does not have a certain function, the corresponding button on this remote control will not operate.

To operate the projection TV
Press TV (FUNCTION). Then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box or DBS receiver
Refer to the operating instructions that come with the equipment.

If the remote control doesn't work

- First, try repeating the setup procedures using the other codes listed for your equipment.

Manufacturer code numbers (cable box)

Manufacturer	Code number
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Manufacturer code numbers (DBS receiver)

Manufacturer	Code number
Sony	801 (preset code for the supplied remote control)
RCA	802

Notes

- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this remote control and you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's own remote control unit.
- Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code numbers may revert to the factory setting and must be reset.

Troubleshooting

If the problem persists after trying the methods below, contact your nearest Sony dealer.

No picture (screen not lit), no sound
- ➡ Make sure the power cord is connected securely.
- ➡ Operate with the buttons on the projection TV.
- ➡ Insert the batteries in the remote control with the correct polarity.
- ➡ Replace the batteries with new ones if they are weak.
- ➡ Check to see if the TV / VIDEO setting is correct: when watching TV, set to TV, and when watching video input pictures, set to VIDEO 1, 2, 3, or 4.
- ➡ Try another channel. It could be station trouble.
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page **21**)

Poor or no picture (screen lit), good sound
- ➡ Adjust PICTURE in the VIDEO menu. (page **30**)
- ➡ Adjust BRIGHTNESS in the VIDEO menu. (page **30**)
- ➡ Adjust convergence. (page **23**)
- ➡ Check antenna / cable connections. (page **6**)
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page **21**)
- ➡ Remove objects from the front of the projection TV.

Good picture, no sound
- ➡ Press MUTING so that "MUTING" disappears from the screen. (page **26**)
- ➡ Check the MTS setting in the AUDIO menu. (page **34**)
- ➡ Make sure SPEAKER is set to ON in the AUDIO menu. (page **35**)
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page **21**)

No color
- ➡ Adjust the COLOR in the VIDEO menu. (page **31**)
- ➡ Confirm that black and white program is not being broadcast.
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page **21**)

Only snow and noise appear on the screen
- ➡ Check the CABLE setting in the SET UP menu. (page **24**)
- ➡ Check the antenna / cable connections. (page **6**)
- ➡ Make sure the channel is broadcasting programs.
- ➡ Press ANT to change the input mode. (page **27**)

Dotted lines or stripes
- ➡ Adjust the antenna.
- ➡ Move the projection TV away from noise sources such as cars, neon signs, and hair-dryers.

Double images or ghosts
- ➡ Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

Cannot operate menu
- ➡ If the item you want to choose appears in gray, you cannot select it. Press TV / VIDEO correctly.
- ➡ Check the CABLE setting in the SET UP menu. (page **24**)

Cannot receive upper channels (UHF) when using an antenna
- ➡ Make sure CABLE is OFF in the SET UP menu. (page **24**)
- ➡ Use AUTO PROGRAM to add receivable channels that are not presently in projection TV memory. (pages **21, 25**)

Cannot receive any channels when using cable TV
- ➡ Make sure CABLE is ON in the SET UP menu. (page **24**)
- ➡ Use AUTO PROGRAM to add receivable channels that are not presently in projection TV memory. (pages **21, 25**)

Remote control does not operate
- ➡ Batteries could be weak. Replace the batteries. (page **20**)
- ➡ Make sure the projection TV's power cord is connected securely to the wall outlet.
- ➡ Press TV (FUNCTION) when operating your projection TV.
- ➡ Are fluorescent lights too close to the projection TV? Move them at least 3-4 feet away from the projection TV.

Cannot gain enough volume when using a cable box
- ➡ Increase the volume at the cable box. Then press TV (FUNCTION) and adjust the projection TV's volume.

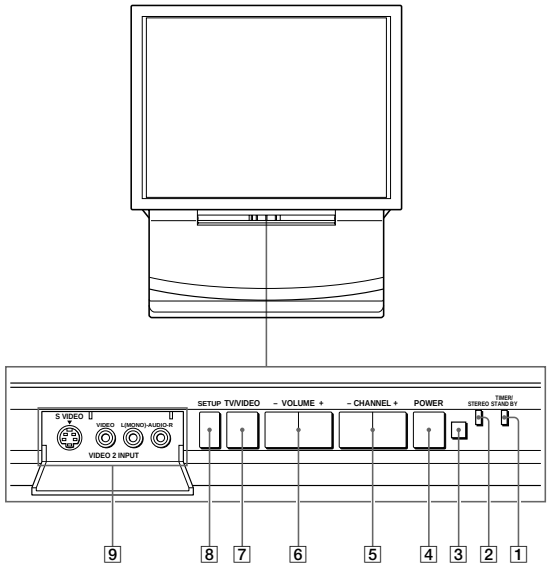
Projection TV malfunctions when using the S-Link function
- ➡ Make sure the projection TV's power cord is connected securely to the wall outlet.
- ➡ Check the S-Link connection. (pages **17, 18**)

The projection TV needs to be cleaned
- ➡ Clean the projection TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

Index to parts and controls

This section briefly describes the buttons and controls on the projection TV and on the remote control. For more information, refer to the pages next to each description.

Projection TV — Front



1 TIMER / STANDBY indicator (pages **26**, **38**)

2 STEREO indicator (page **34**)

3 Remote sensor

4 POWER switch (page **21**)

5 CHANNEL + / – buttons (page **21**)

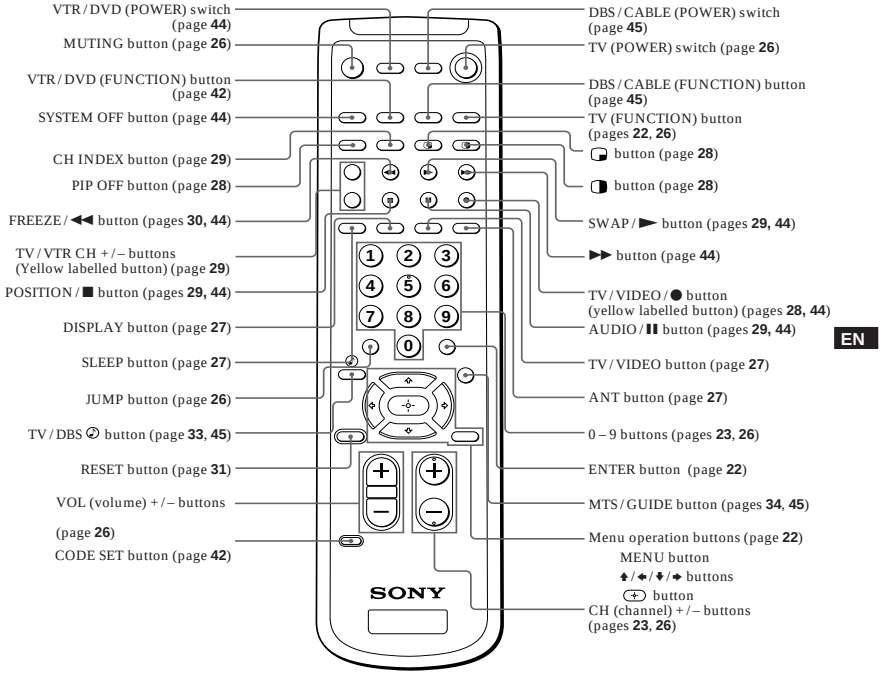
6 VOLUME + / – buttons (page **21**)

7 TV / VIDEO button (page **21**, **22**)

8 SETUP button (page **21**)

9 S VIDEO / VIDEO 2 INPUT (VIDEO / AUDIO L(MONO) / R) jacks (page **10**)

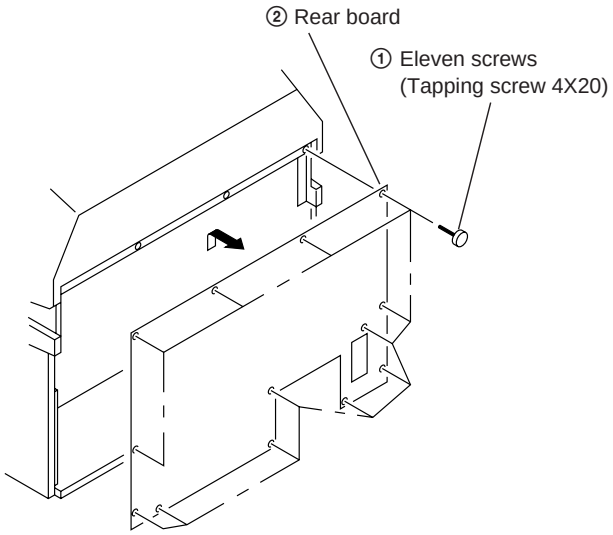
Remote control


VTR / DVD (POWER) switch (page 44)
MUTING button (page 26)
VTR / DVD (FUNCTION) button (page 42)
SYSTEM OFF button (page 44)
CH INDEX button (page 29)
PIP OFF button (page 28)
FREEZE / ◄◄ button (pages 30, 44)
TV / VTR CH +/– buttons (Yellow labelled button) (page 29)
POSITION / ■ button (pages 29, 44)
DISPLAY button (page 27)
SLEEP button (page 27)
JUMP button (page 26)
TV / DBS button (page 33, 45)
RESET button (page 31)
VOL (volume) +/– buttons (page 26)
CODE SET button (page 42)
DBS / CABLE (POWER) switch (page 45)
TV (POWER) switch (page 26)
DBS / CABLE (FUNCTION) button (page 45)
TV (FUNCTION) button (pages 22, 26)
button (page 28)
button (page 28)
SWAP / ► button (pages 29, 44)
►► button (page 44)
TV / VIDEO / ● button (yellow labelled button) (pages 28, 44)
AUDIO / ▮▮ button (pages 29, 44)
TV / VIDEO button (page 27)
ANT button (page 27)
0 – 9 buttons (pages 23, 26)
ENTER button (page 22)
MTS / GUIDE button (pages 34, 45)
Menu operation buttons (page 22)
MENU button
↑ / ← / ↓ / → buttons
button
CH (channel) +/– buttons (pages 23, 26)
SONY

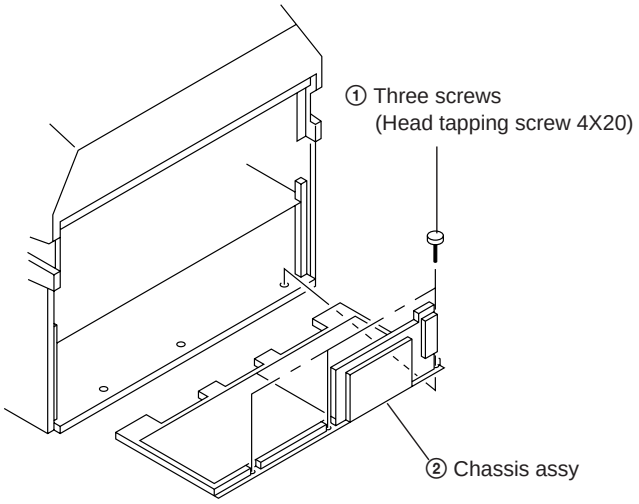
EN

SECTION 2
DISASSEMBLY

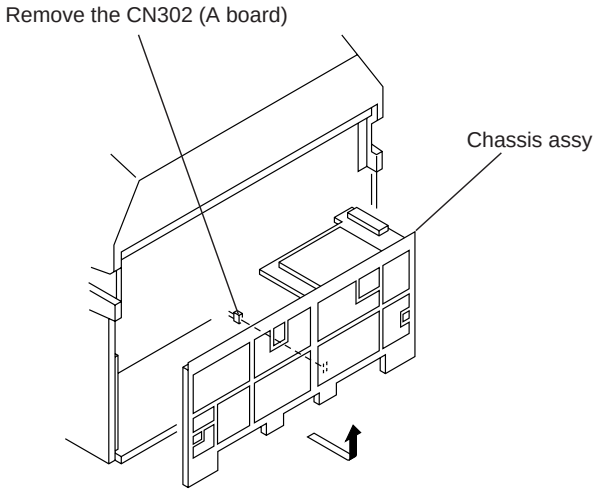
2-1. REAR BOARD REMOVAL



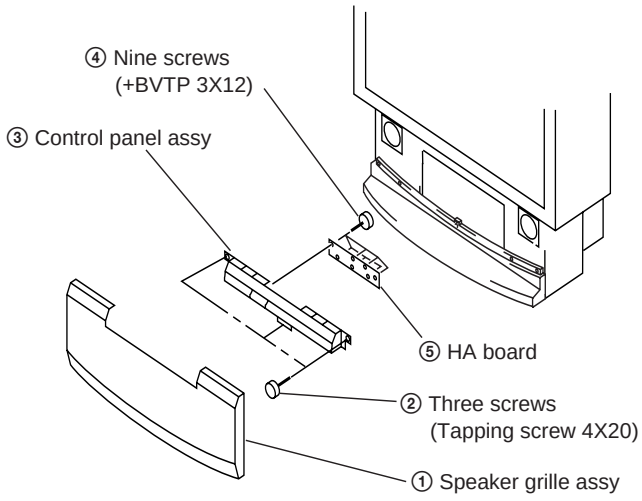
2-2. CHASSIS ASSY REMOVAL



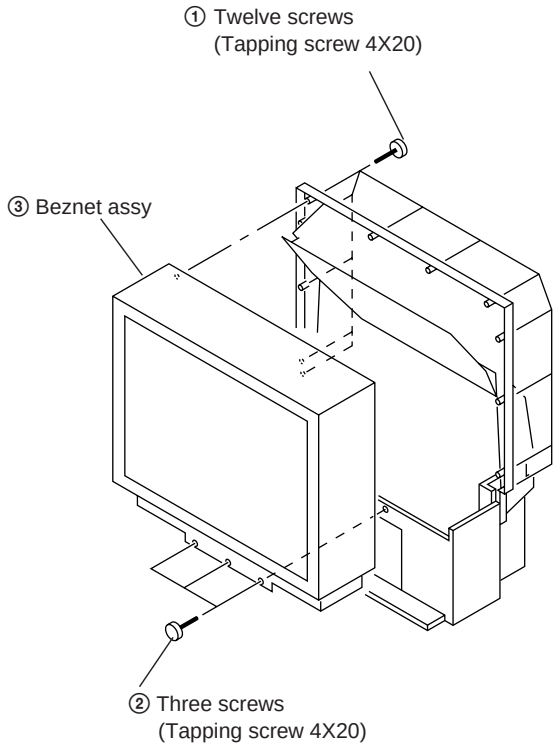
2-3. SERVICE POSITION



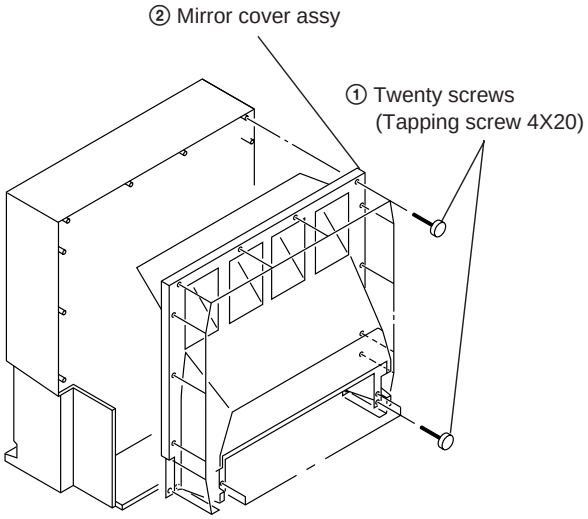
2-4. HA BOARD REMOVAL



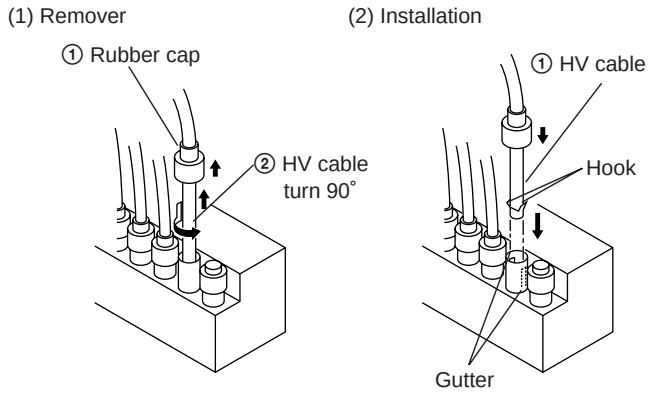
2-5. BEZNET ASSY REMOVAL



2-6. MIRROR COVER ASSY REMOVAL



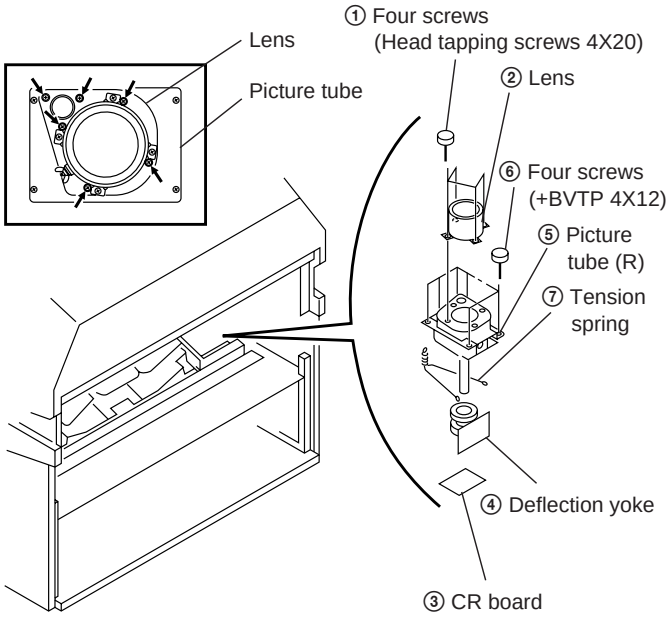
2-7. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL



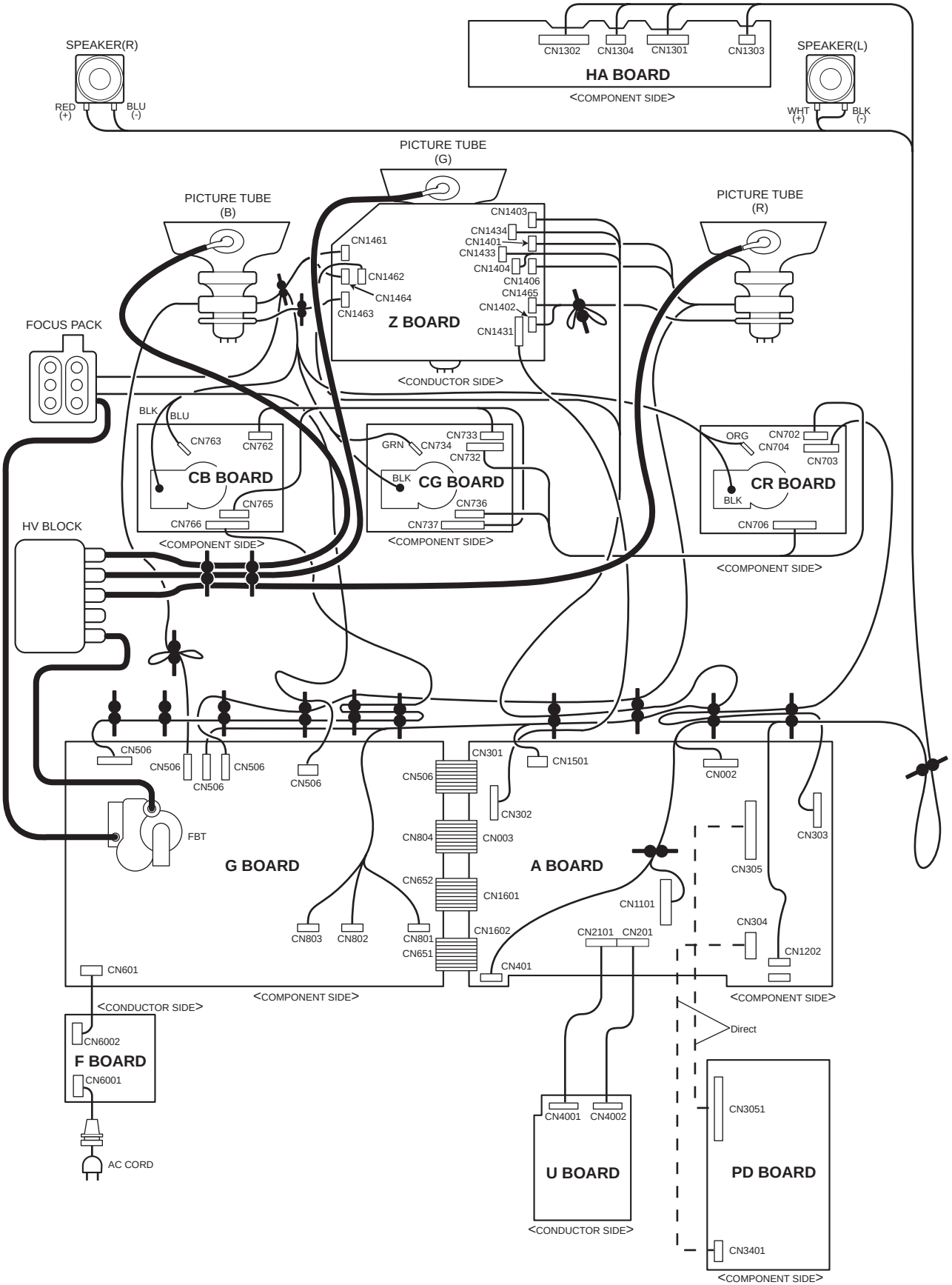
2-8. PICTURE TUBE REMOVAL

CAUTION: Removing the arrow-marked screws is strictly inhibited.

If removed, it may cause liquid spill.

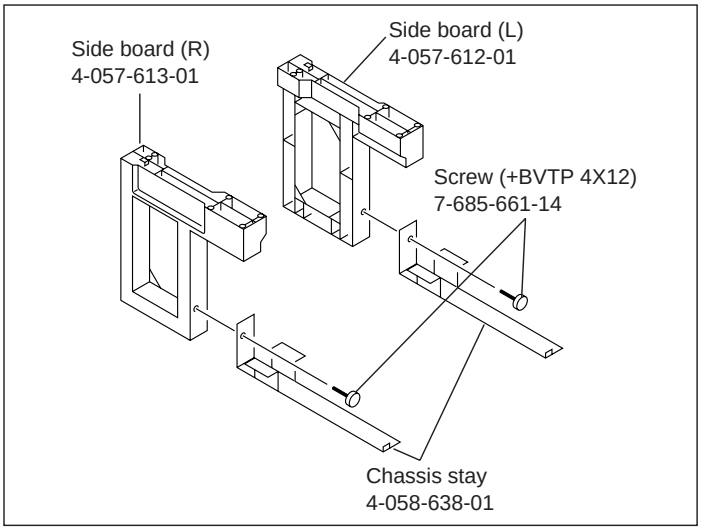


2-9. WIRING DRAWINGS AND WIRING LAYOUT



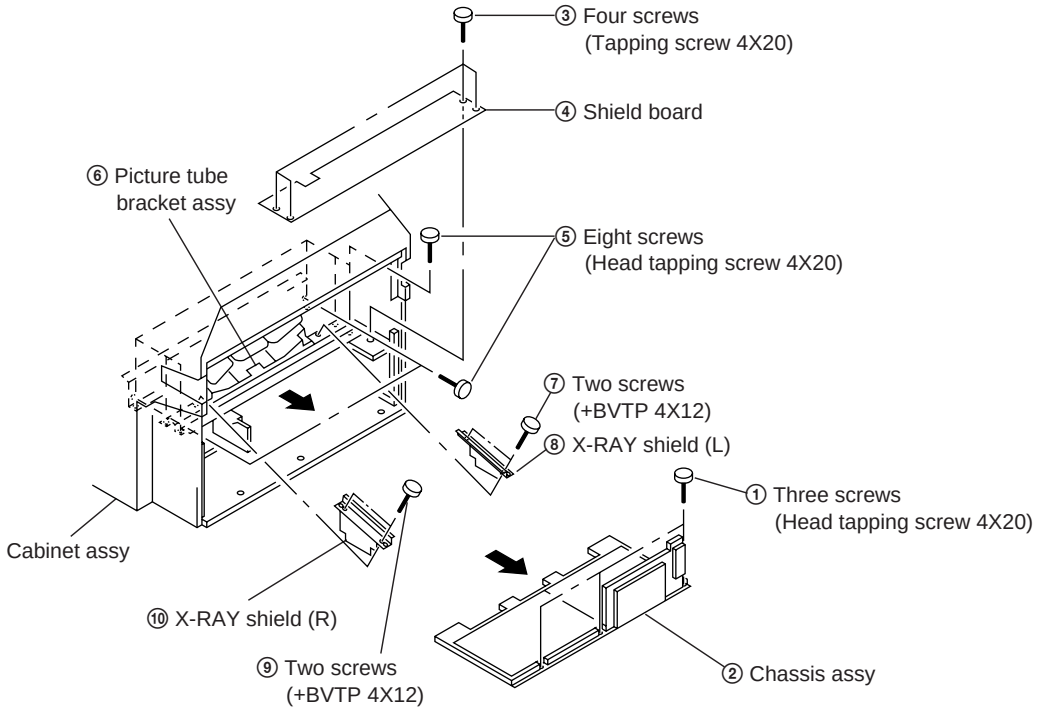
2-10. SERVICE STAY ASSY HOW TO USE AND CARRY BACK SERVICE STAY ASSY.

SERVICE STAY ASSY **X-3702-036-1**



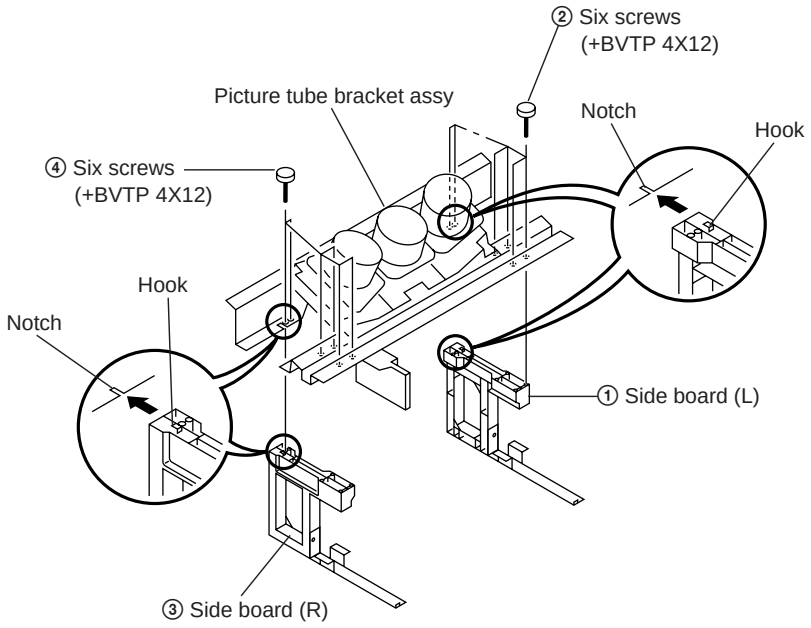
(1) PICTURE TUBE BRACKET ASSY REMOVAL

- **Disassemble HA board and speaker cord.**
- **Disassemble all the harness from purse lock.**



1) Remove ① three screws (head tapping screw 4X20) and pull out ② chassis assy from cabinet assy.
2) Remove ③ four screws (tapping screw 4X20) and remove ④ shield board.
3) Remove ⑤ eight screws (head tapping screw 4X20) and release ⑥ picture tube bracket assy from cabinet assy.
4) Remove ⑦ two screws (+BVTP 4X12) and remove ⑧ X-RAY shield (L).
5) Remove ⑨ two screws (+BVTP 4X12) and remove ⑩ X-RAY shield (R).

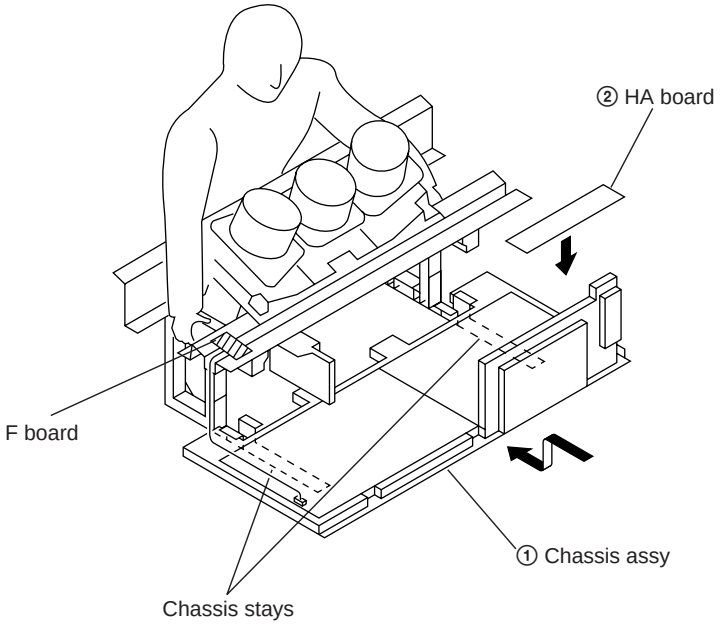
(2) SETTING OF SERVICE STAY ASSY.



1) Remove CR board from picture tube.
2) Lift up picture tube bracket assy and fit the hook of ① side board (L) to the notch on the assy. Then fix then with ② six screws (+BVTP 4X12).
3) Lift up picture tube bracket assy and fit the hook of ③ side board (R) to the notch on the assy. Then fix then with ④ six screws (+BVTP 4X12).

Note : Always be sure to remove the picture tube before trying to set the sideboards (R L). The CR board may be damaged if left in position while setting the sideboards and it may be impossible to set the sideboards correctly.

(3) INSTALL A CHASSIS ASSY AND CARRY THE PICTURE TUBE BRACKET



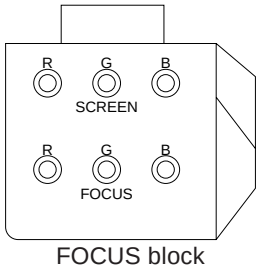
1) Put ① chassis assy on chassis stays.
2) Put ② HA board on ① chassis assy
3) Put your hands to side board (L) and (R).
4) You can carry the chassis assy in this condition.

Note : Make sure that the CR board has been removed before installing the chassis assy.

SECTION 3
SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.



FOCUS block

Fig. 3-1

3-2. FOCUS LENS ADJUSTMENT

1. Loose the lens screw.
2. Set in service mode.
3. Use VP on the service mode menu to shown only the green color.
4. Press the Commander Menu button and select FEATURES and CONVERGENCE to display the test signal (crosshatch) on the screen.
5. Rotate the green lens and align with the optimal focus point from the test signal.
6. Use RG-RH from the service mode menu to set to green and red.
7. Output the test signal and rotate the red lens to obtain the optimum focus at the point where the red and green spots overlap.
8. Use RG-BH from the service mode menu to set to red and blue.
9. Output the test signal and rotate the blue lens to obtain the optimum focus at the point where the blue and red spots overlap.
10. Tighten the lens screw.

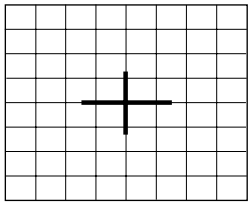

Test signal

Fig. 3-2

3-3. SCREEN (G2) ADJUSTMENT

1. Select VIDEO mode without signals.
2. Connect an oscilloscope to the TP701(KR), TP731(KG) and TP761(KB) of CR board, CG board and CB board.
3. Adjust R, G and B screen voltage to 170 – 173V with screen VR on the focusblock.
4. After adjusting the screen VR on the focus block confirm that the retrace lines are not visible. If retrace lines are visible reduce the setting of the screen VR until the retrace lines are not visible.

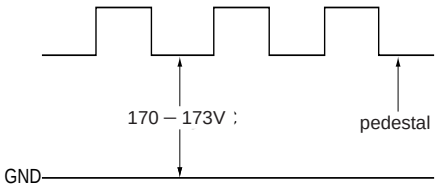


Fig. 3-3

3-4. FOCUS VR ADJUSTMENT

1. Set in service mode.
2. Use VP on the service mode menu to shown only the green color.
3. Press the Commander Menu button (convergence) and output the test signal (crosshach).
4. Rotate the green VR on the FOCUS block and align to obtain the optimal focus point.
5. Use RG-RH from the service mode menu to set to green and red.
6. Output the test signal and rotate the red VR to obtain the optimum focus at the point where the red and green spots overlap.
7. Use RG-BH from the service mode menu to set to red and blue.
8. Output the test signal and rotate the blue VR aligning to obtain the optimum focus at the point where the blue and green spots overlap.

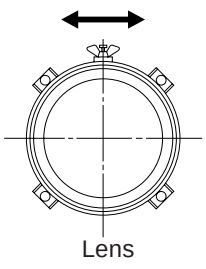


Fig. 3-4

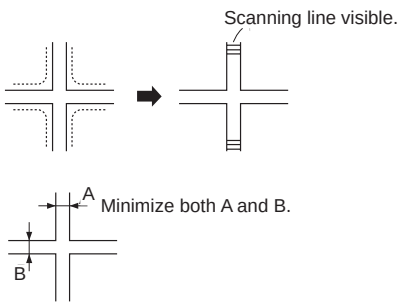


Fig. 3-5

3-5. DEFLECTION YOKE TILT ADJUSTMENT

1. Set to receive the Monoscope signal.
2. Set in service mode.
3. Use VP on the service mode menu to show only the green color.
4. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
5. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
6. The tilt of the deflection yoke for red is aligned with RG-RH on the service mode menu, and the tilt on the deflection yoke for biue is aligned with RG-BH on the service menu, is aligned the same as was done for green.

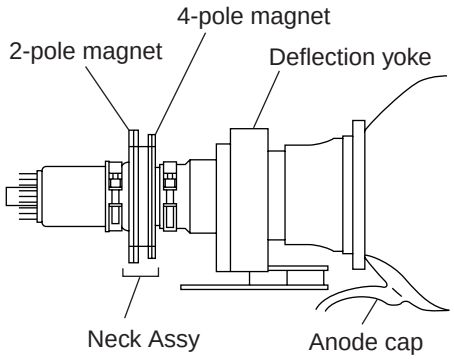


Fig. 3-6

3-6. 2-POLE MAGNET ADJUSTMENT

1. Disconnect CN1431 on Z board.
2. Power on.
3. Set to receive dot hatch signal.
4. Place caps on the red and blue lenses so that only the green color is shown.
5. Turn the green VR on the focus block to the left and set to underfocus to enlarge the spot.
6. Adjust the 2-pole magnet so that the spot is centered inside of the flare portion and the width of the flare on the left side and right side is equal.
7. Turn the green VR on the focus block to the right and adjust for best focus.
8. Perform the same adjustment for red.
9. Power off
10. Connect CN1431.

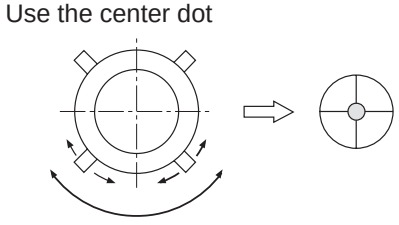


Fig. 3-7

3-7. 4-POLE MAGNET ADJUSTMENT

1. Disconnect CN1431 on Z board.
2. Power on.
3. Set to receive the dot signal.
4. Place caps on the red and blue lenses so that only the green color is shown.
5. Turn the green VR on the focus block to the right and set to overfocus to enlarge the spot.
6. Adjust the 4-pole magnet so that the spot becomes a perfect circle.
7. Turn the green VR on the focus block to the left and adjust for best focus.
8. Perform the same adjustment for red and blue. For red adjust the spot to a circle. For blue adjust the spot so that the spot height is 1.5 times higher than the spot width (x : y = 1 : 1.5).
9. Power off
10. Connect CN1431.

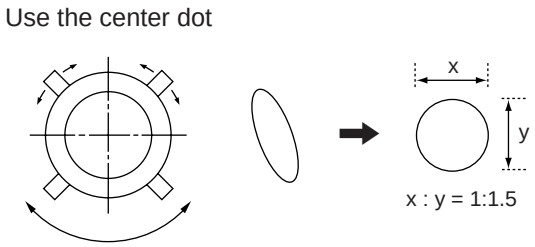


Fig. 3-8

3-8. DEFOCUS ADJUSTMENT (Blue)

1. Receive the dot hatch signal
2. Adjust the blue FOCUS knob clockwise until the right dot becomes oval.
3. Check flare with high luminance dot hatch signal to make sure that the blue flare is minimal Reduce defocus if blue flare is excessive.
4. Defocus adjustment is for blue only.

3-9. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using Remote Commander (RM-Y903),all circuit adjustments can be made.

NOTE : Test Equipment Required.

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

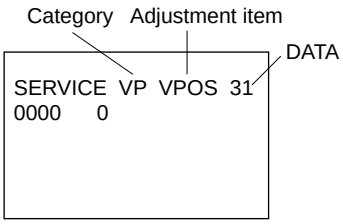
SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. DISPLAY → 5 → VOL (+) → TV POWER

   (+ → 5 → ◿ → ▢)

   on the Remote Commander.
   (Press each button within a second.)

SERVICE MODE ADJUSTMENT

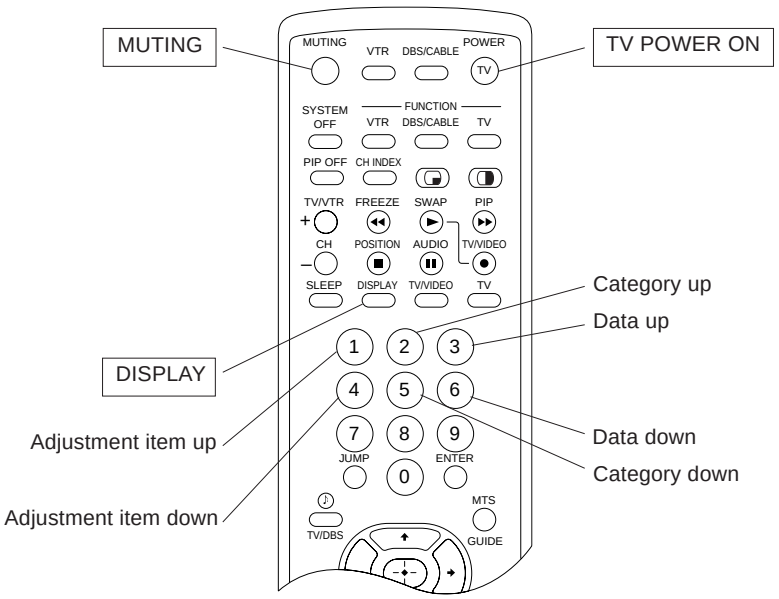


3. The CRT displays the item being adjusted.
4. Press 1 or 4 on the Remote Commander to select the item.
5. Press 3 or 6 on the Remote Commander to change the data.
6. Press 2 or 5 on the Remote Commander to select the category.
7. If you want to recover the latest values press 0 then ENTER to read the memory.
8. Press MUTING then ENTER to write into memory.
9. Press 8 then ENTER on the Remote Commander to initialize or turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, remove the plug from AC outlet, and then replace the plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.

3. ADJUST BUTTONS AND INDICATOR



RM-Y903

4. SERVICE MODE LIST

VP

Category	Adjustment item	Standard data	Data range	Note
VP	VPOS	-	0-63	V SHIFT
	VSIZ	-	0-63	V SIZE
	VCOM	0	0-3	HV-COMP-V
	VLIN	7	0-15	V LIN
	VSCO	7	0-15	S CORRECTION
	HPOS	7	0-15	H SHIFT
	HSIZ	-	0-63	H SIZE
	PAMP	-	0-63	PIN AMP
	UPIN	7	0-15	UPPER CORNER PIN
	LPIN	7	0-15	LOWER CORNER PIN
	PPHA	7	0-15	H TRAPEZOID
	AFC	2	0-3	AFC LOOP GAIN
	VBOW	7	0-15	V BOW
	VANG	7	0-15	V ANGLE
	REF	3	0-3	AKB REFERENCE
	GDRV	-	0-63	GREEN DRIVE
	BDRV	-	0-63	BLUE DRIVE
	GCUT	-	0-15	GREEN CUT OFF
	BCUT	-	0-15	BLUE CUT OFF
	SCON	-	0-15	SUB CONTRAST
	SHUE	-	0-15	SUB HUE
	SCOL	-	0-15	SUB COLOR
	SBRT	31	0-63	SUB BRIGHTNESS
	SSHP	7	0-15	SUB SHARPNESS
	GMMA	0	0-3	GAMMA LEVEL
	EYSW	0	0,1	EXT-Y SWITCH
	CDM2	0	0,1	COUNT DOWN MODE 2
	DPIX	1	0,1	DYNAMIC PICTURE
	Y-DC	1	0,1	DC TRANSMISSION RATIO
	ABLM	1	0,1	ABL MODE
	AXIS	0	0,1	R-Y, G-Y AXIS
	NOTC	0	0,1	C TRAP
	CROM	7	0-15	C TRAP F0
	TOT	0	0,1	C TOT FILTER
	PREL	3	0-3	PRE/OVER LEVEL
	SHPF	3	0-3	SHARPNESS F0
	RON	1	0,1	RED ON/OFF
	GON	1	0,1	GREEN ON/OFF
	BON	1	0,1	BLUE ON/OFF
	DCOL	0	0,1	DYNAMIC COLOR
	CDMD	0	0,1	V COUNT DOWN
	LBLK	13	0-15	H BLK WIDTH LEFT SIDE
	RBLK	13	0-15	H BLK WIDTH RIGHT SIDE

3D

Category	Adjustment item	Standard data	Data range	Note
3D	NRMD	0	0-13	NOISE REDUCER MODE
	DYCO	2	0-15	Δ Y CORING LEVEL SETTING
	DYGA	10	0-15	Δ Y GAIN SETTING
	DCCO	5	0-15	Δ C CORING LEVEL SETTING
	DCGA	5	0-15	Δ C GAIN SETTING
	SELD	1	0,1	SELECT Δ Y SIGNAL FILTER
	D2GA	4	0-7	Δ Y/C 2nd GAIN SETTING
	VTRH	1	0-3	VTR HSYNC HYSTERESIS SETTING
	VTRR	1	0-3	VTR HSYNC REFERENCE SETTING
	LDSR	2	0-3	LD SIGNAL REFERENCE
	VAPG	5	0-7	V APERTURE GAIN
	VAPI	11	0-31	V APERTURE INVERT POINT
	VPFT	0	0-3	Y PEAKING FILTER TAP
	VPFG	8	0-15	Y PEAKING FILTER GAIN
	V1PS	2	0-3	VERTICAL 1 LINE SELECTOR
	VEGS	1	0-3	VERTICAL EDGE SELECTOR
	CC3N	0	0,1	C SIGNAL 3-LINE COM FILTER
	HDP	4	0-7	HD HORIZONTAL PHASE
	CDL	4	0-7	C DELAY
	HSSL	12	0-15	H SYNC SLICE LEVEL
	VSSL	8	0-15	V SYNC SLICE LEVEL
	HPLF	1	0,1	H PLL FILTER
	BPLF	0	0,1	BURST PLL FILTER
	FSCF	1	0,1	FSC FILTER GAIN
	PLFG	1	0,1	PLL FILTER GAIN
	EXAD	1	0,1	EXTERNAL AD IN
	MSS	0	0-3	FORCED MOTION SIGNAL
	COUT	3	0-3	C SIGNAL OUTPUT
	YAPS	1	0-3	Y APERTURE
	NSDS	0	0-3	NON STD SIGNAL DETCT.
	EXCS	1	0-3	EXTERNAL COMP. SYNC.
	CPP	0	0-3	CLAMP PULSE & AD RANGE
	YHCO	0	0-3	Y HIGH FREQ. SIGNAL CORING
	YPCO	0	0,1	Y PEEK FILTER CORING OFF
	KILR	3	0-15	KILLER REFERENCE
	BGPS	4	0-15	BGP START POSITION
	BGPW	10	0-15	BGP WIDTH
	ADCL	2	0-3	AD CLOCK DELAY

AP

Category	Adjustment item	Standard data	Data range	Note
AP	SVOL	0	0-15	SUB VOLUME
	SBAL	7	0-15	SUB BLANCE
	SBAS	7	0-15	SUB BASS
	STRE	7	0-15	SUB TREBLE

PP

Category	Adjustment item	Standard data	Data range	Note
PP	BGHP	5	0-15	PIP H POSITION
	BGVP	9	0-15	PIP V POSITION
	MAHP	-	0-15	P&P MAIN H AQUISITION
	MAVP	27	0-255	P&P MAIN V AQUISITION
	SAHP	-	0-15	P&P SUB H AQUISITION
	SAVP	27	0-255	P&P SUB V AQUISITION
	DECM	18	0-31	M DECODER REGISTERS
	DECS	18	0-31	S DECODER REGISTERS
	DIS	66	0-127	DISPLAY SETTING
	BSIZ	2	0-15	BORDER SIZE
	6BIT	1	0-3	6bit (SMART6/SKIP6)
	VPED	13	0-15	V OFFSET
	UPED	13	0-15	U OFFSET

DA

Category	Adjustment item	Standard data	Data range	Note
DA	UVSH	-	0-63	YUV SUB HUE
	UVSC	-	0-63	YUV SUB COLOR

MC

Category	Adjustment item	Standard data	Data range	Note
MC	MSCN	-	0-15	P&P MAIN SUB CONTRAST
	MSHU	-	0-15	P&P MAIN SUB HUE
	MSCL	-	0-15	P&P MAIN SUB COLOR
	MUPD	-	0-15	P&P MAIN U OFFSET
	MVPD	-	0-15	P&P MAIN V OFFSET
	MDLY	0	0-3	P&P MAIN Y DELAY
	MBGR	3	0-3	P&P MAIN SCP CONTROL(1)
	MBGF	3	0-3	P&P MAIN SCP CONTROL(2)
	MU2P	7	0-7	P & P MAIN U2 PEDESTAL OFFSET
	MV2P	7	0-7	P & P MAIN V2 PEDESTAL OFFSET
	MY2D	19	0-31	P & P MAIN Y2 DRIVE
	MU2D	14	0-31	P & P MAIN U2 DRIVE
	MV2D	14	0-31	P & P MAIN V2 DRIVE

IC

Category	Adjustment item	Standard data	Data range	Note
IC	SSCN	-	0-15	P&P SUB SUB CONTRAST
	SSHU	-	0-15	P&P SUB SUB HUE
	SSCL	-	0-15	P&P SUB SUB COLOR
	SUPD	-	0-15	P&P SUB U OFFSET
	SVPD	-	0-15	P&P SUB V OFFSET
	SDLY	0	0-3	P&P SUB Y DELAY
	SBGR	3	0-3	P&P SUB SCP CONTROL(1)
	SBGF	3	0-3	P&P SUB SCP CONTROL(2)
	SU2P	7	0-15	P & P SUB U2 PEDESTAL OFFSET
	SV2P	7	0-15	P & P SUB V2 PEDESTAL OFFSET
	SY2D	19	0-31	P & P SUB Y2 DRIVE
	SU2D	14	0-31	P & P SUB U2 DRIVE
	SV2D	14	0-31	P & P SUB V2 DRIVE
	PCDR	32	0-63	PIP COLOR
	PHDR	31	0-63	PIP HUE
	PAFC	2	0-3	PIP AFC LOOP GAIN
	PTOT	0	0,1	PIP CHROMA TOT FILTER
	PYDR	23	0-31	PIP Y DRIVE
	PYDC	0	0-7	PIP DC TRAN
	PSHP	1	0,1	PIP SHARPNESS F0
	PDPI	0	0,1	PIP DYNAMIC PICTURE
	PSYS	0	0-3	PIP COLOR SYSTEM
	PXTL	0	0-3	PIP X' TAL
	PLOP	0	0-3	PIP COLOR LOOP

RG

Category	Adjustment item	Standard data	Data range	Note
RG-GH	GH CENT	-	–127- +127	GREEN H SENT
	GH SKEW	-	–127-+127	GREEN H SKEW
	GH BOW	-	–127-+127	GREEN H BOW
	GH 4BOW	-	–127-+127	GREEN H 4TH BOW
	GH SIZE	20	–127-+127	GREEN H SIZE
	GH LIN	-	–127-+127	GREEN H LINEARITY
	GH MSIZ	-	–127-+127	GREEN H MID SIZE
	GH MLIN	-	–127-+127	GREEN H MID LINEARITY
	GH KEY	-	–127-+127	GREEN H KEY
	GH SSKW	-	–127-+127	GREEN H SUB SKEW
	GH MPIN	-	–127-+127	GREEN H MID PIN
	GH PIN	-	–127-+127	GREEN H PIN
	GH SBOW	-	–127-+127	GREEN H SUB BOW
	GH MBOW	-	–127-+127	GREEN H MID BOW
	GH 4PIN	-	–127-+127	GREEN H 4TH PIN
	GH 4SBO	-	–127-+127	GREEN H 4TH SUB BOW
RG-GV	GV CENT	-	–127-+127	GREEN V CENT
	GV SKEW	-	–127-+127	GREEN V SKEW
	GV BOW	-	–127-+127	GREEN V BOW
	GV SIZE	–20	–127-+127	GREEN V SIZE
	GV LIN	-	–127-+127	GREEN V LINEARITY
	GV MSIZ	-	–127-+127	GREEN V MID SIZE
	GV MKEY	-	–127-+127	GREEN V MID KEY
	GV KEY	-	–127-+127	GREEN V KEY
	GV SSKW	-	–127-+127	GREEN V SUB SKEW
	GV MPIN	-	–127-+127	GREEN V MID PIN
	GV PIN	-	–127-+127	GREEN V PIN
	GV SBOW	-	–127-+127	GREEN V SUB BOW
	GV WAVE	-	–127-+127	GREEN V WAVE
	GV 4PIN	-	–127-+127	GREEN V 4TH PIN
RG-RH	RH CENT	-	–95-+96	RED H CENT
	RH SKEW	-	–127-+127	RED H SKEW
	RH BOW	-	–127-+127	RED H BOW
	RH 4BOW	-	–127-+127	RED H 4TH BOW
	RH SIZE	-	–127-+127	RED H SIZE
	RH LIN	-	–127-+127	RED H LINEARITY
	RH MSIZ	-	–127-+127	RED H MID SIZE
	RH MLIN	-	–127-+127	RED H MID LINEARITY
	RH KEY	-	–127-+127	RED H KEY
	RH SSKW	-	–127-+127	RED H SUB SKEW
	RH MPIN	-	–127-+127	RED H MID PIN
	RH PIN	-	–127-+127	RED H PIN
	RH SBOW	-	–127-+127	RED H SUB BOW
	RH MBOW	-	–127-+127	RED H MID BOW
	RH 4PIN	-	–127-+127	RED H 4TH PIN
	RH 4SBO	-	–127-+127	RED H 4TH SUB BOW
RG-RV	RV CENT	-	–95-+96	RED V CEVT
	RV SKEW	-	–127-+127	RED V SKEW
	RV BOW	-	–127-+127	RED V BOW
	RV SIZE	-	–127-+127	RED V SIZE
	RV LIN	-	–127-+127	RED V LINEARITY
	RV MSIZ	-	–127-+127	RED V MID SIZE
	RV MKEY	-	–127-+127	RED V MID KEY
	RV KEY	-	–127-+127	RED V KEY
	RV SSKW	-	–127-+127	RED V SUB SKEW
	RV MPIN	-	–127-+127	RED V MID PIN
	RV PIN	-	–127-+127	RED V PIN
	RV SBOW	-	–127-+127	RED V SUB BOW
	RV WAVE	-	–127-+127	RED V WAVE
	RV 4PIN	-	–127-+127	RED V 4TH PIN
	RV WING	-	–31-+32	RED V WING

Category	Adjustment item	Standard data	Data range	Note
RG-BH	BH CENT	-	–95-+96	BLUE H CENT
	BH SKEW	-	–127-+127	BLUE H SKEW
	BH BOW	-	–127-+127	BLUE H BOW
	BH 4BOW	-	–127-+127	BLUE H 4TH BOW
	BH SIZE	-	–127-+127	BLUE H SIZE
	BH LIN	-	–127-+127	BLUE H LINEARITY
	BH MSIZ	-	–127-+127	BLUE H MID SIZE
	BH MLIN	-	–127-+127	BLUE H MID LINEARITY
	BH KEY	-	–127-+127	BLUE H KEY
	BH SSKW	-	–127-+127	BLUE H SUB SKEW
	BH MPIN	-	–127-+127	BLUE H MID PIN
	BH PIN	-	–127-+127	BLUE H PIN
	BH SBOW	-	–127-+127	BLUE H SUB BOW
	BH MBOW	-	–127-+127	BLUE H MID BOW
	BH 4PIN	-	–127-+127	BLUE H 4TH PIN
	BH 4SBO	-	–127-+127	BLUE H 4TH SUB BOW
	BV CENT	-	–95-+96	BLUE V CENT
RG-BV	BV SKEW	-	–127-+127	BLUE V SKEW
	BV BOW	-	–127-+127	BLUE V BOW
	BV SIZE	-	–127-+127	BLUE V SIZE
	BV LIN	-	–127-+127	BLUE V LINEARITY
	BV MSIZ	-	–127-+127	BLUE V MID SIZE
	BV MKEY	-	–127-+127	BLUE V MID KEY
	BV KEY	-	–127-+127	BLUE V KEY
	BV SSKW	-	–127-+127	BLUE V SUB SKEW
	BV MPIN	-	–127-+127	BLUE V MID PIN
	BV PIN	-	–127-+127	BLUE V PIN
	BV SBOW	-	–127-+127	BLUE V SUB BOW
	BV WAVE	-	–127-+127	BLUE V WAVE
	BV 4PIN	-	–127-+127	BLUE V 4TH PIN
	BV WING	-	–31-+32	BLUE V WING

CC

Category	Adjustment item	Standard data	Data range	Note
CC	CRIL	2	0-15	CRI COUNT LOW
	CFLD	5	0-15	FIXED FIELD COUNT
	CCDI	3	0-7	NO CCD INT COMPARE
	CRIP	4	0-7	CRI & PARITY ERROR
	CRIT	1	0-3	CRI TIME CONSTANT
	CSB1	3	0-3	SYNC SLICE BIAS 1
	CSB2	4	0-7	SYNC SLICE BIAS 2
	CREP	142	0-255	CRI SIGNAL END POSITION
	CDSD	8	0-31	DATA START DELAY
	CCDS	9	0-31	CAPTION DT THRESHOLD
	CHMK	42	0-63	H SYNC MASK WIDTH
	CHSY	136	0-255	H SYNC VCO COUNT

OP

Category	Adjustment item	Standard data	Data range	Note
OP	DISP	-	0-63	OSD POSITION
	POPS	-	0-255	FAV/IDX CH POSITION
	POPO	-	0-7	CH POSITION (OFF SET)

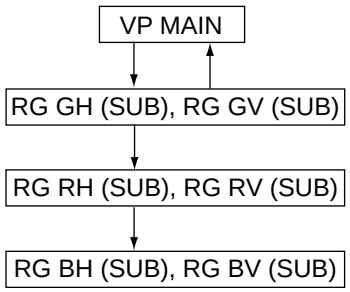
ID

Category	Adjustment item	Standard data	Data range	Note
ID	ID0	25	0-255	MODEL ID#0
	ID1	55	0-255	MODEL ID#1
	ID2	47	0-255	MODEL ID#2
	ID3	0	0-255	MODEL ID#3
	ID4	155	0-255	MODEL ID#4
	ID5	181	0-255	MODEL ID#5
	ID6	214	0-255	MODEL ID#6
	ID7	71	0-255	MODEL ID#7

3-10. CONVERGENCE ADJUSTMENT

• When replacing the deflection yoke, always perform "DEFLECTION YOKE TILT ADJUSTMENT" before adjusting the convergence.

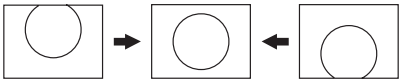
Adjustment procedure



[GREEN REGISTRATION ADJUSTMENT]

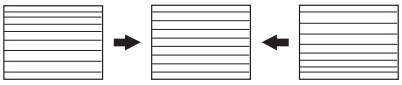
• V-SHIFT adjustment

VP VPOS



• V-LINEARITY adjustment

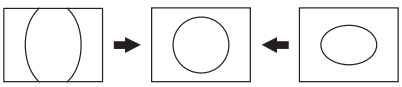
VP VLIN



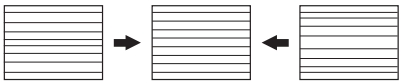
• V-SIZE, V-CORRECTION adjustment

While tracking, adjust so that the lattice intervals for VSIZ and VSCO are equal.

VP VSIZ

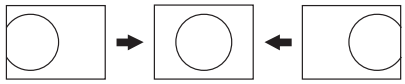


VP VSCO



• H-SHIFT adjustment

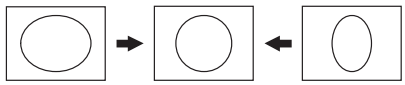
VP HPOS



• H-SIZE adjustment

Finely adjust with SUB MSIZ.

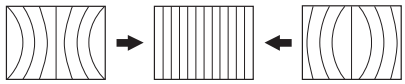
VP HSIZ



• PIN-AMP adjustment

Finely adjust with SUB MPIN.

VP PAMP

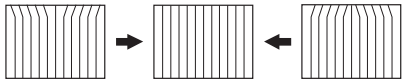


• UPPER/LOWER-CORNER PIN adjustment

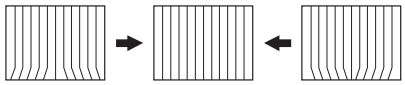
Correct the screens top and bottom bow line.
However, if this adjustment is overdone, distortion may occur with the PIN-AMP adjustment that can not be re-adjusted.

Note : The PIN-AMP adjusts the overall screen from top to bottom, but the UPPER/LOWER-CORNER PIN adjustments have large movement in the top and bottom sections, so be careful.

VP UPIN



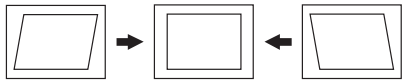
VP LPIN



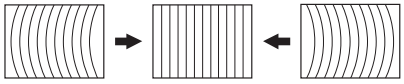
• V-ANGLE, V-BOW adjustment

Correct the tilt and bow of the vertical line at the center of the screen.

VP VANG



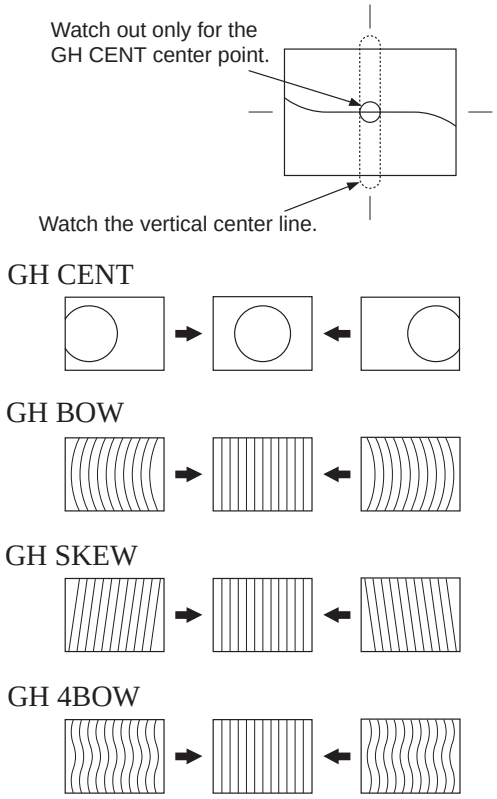
VP VBOW



[GREEN SUB ADJUSTMENT]

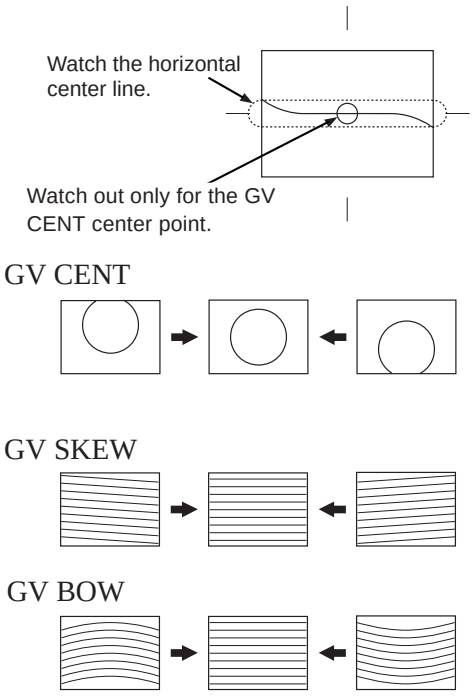
SCREEN CENTER SECTION GREEN VERTICAL LINE ADJUSTMENT

1. Finely adjust with GH CENT, GH BOW, GH SKEW.
   Adjust by watching out for the GH CENT screen center section.
2. GH 4TH BOW adjustment
   Correct the corner distortion that could not be adjusted away with the GH 4BOW adjustment.



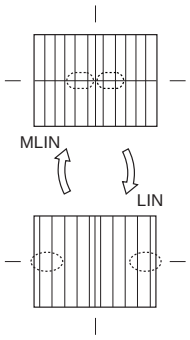
SCREEN CENTER SECTION GREEN HORIZONTAL LINE ADJUSTMENT

1. Finely adjust the center position of the vertical line at the center of the screen with GV CENT.
2. Correct the tilt and bow of the horizontal line at the center of the screen with GV SKEW and GV BOW.



GREEN SIZE AND LINEARITY ADJUSTMENT

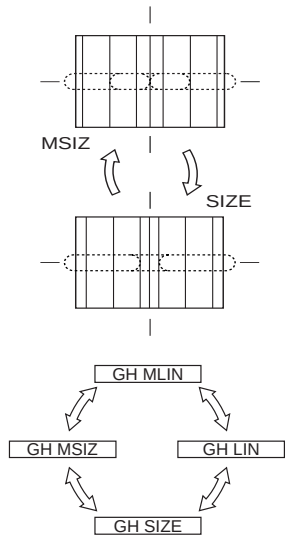
1. Balance the sizes at both sides of the center section of the screen with GH MLIN.
2. Balance the sizes on both end sections of the screen with GH LIN.
3. While tracking, adjust with GH MLIN and GH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right.



GREEN HORIZONTAL SIZE ADJUSTMENT

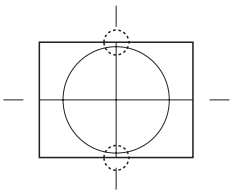
1. Adjust with GH MSIZE so that the sizes of both ends and of both sides of the center section of the screen are equal.
2. Adjust with GH SIZE so that the horizontal sizes of both ends and of both sides of the center section of the screen are equal.
3. While tracking, adjust with GH MSIZ and GH SIZE so that the lattice intervals for the horizontal line section of the center section of the screen are equal and so that the horizontal size is the prescribed value.
4. If M LIN is changed when the GH MSIZ and GH SIZE adjustment is complete, adjust again while tracking.

• With just the H SIZE adjustment in MAIN, if there is no need to adjust GH SIZE in SUB this can save power.



GREEN VERTICAL LINEARITY ADJUSTMENT

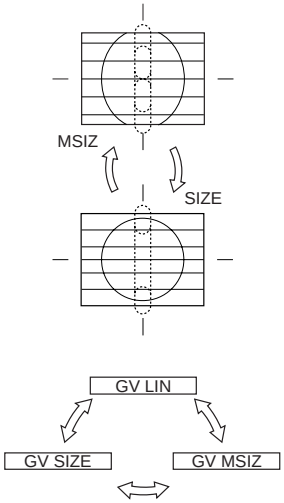
1. Adjust GV LIN so that the vertical lines at the top and bottom of the screen are symmetrical.



GREEN VERTICAL SIZE ADJUSTMENT

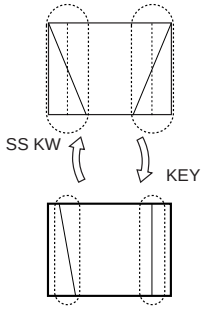
1. Adjust with GV MSIZE so that the sizes for the top and bottom sections of the screen and for both sides of the center section of the screen are equal.
2. Set the vertical size to the prescribed value with GV SIZE.
3. Adjust GV MSIZ and GV SIZE watching the vertical line at the center section of the screen.
4. While tracking, adjust with GV MSIZ and GV SIZE so that the lattice intervals for the vertical line section of the center section of the screen are equal and so that the vertical size is the regulation value.
5. If GV LIN is out of place when the GV MSIZ and GV SIZE adjustment is complete, adjust again while tracking.

• If there is no need to adjust GV SIZE in SUB with just the V SIZE adjustment in MAIN, this can save power.



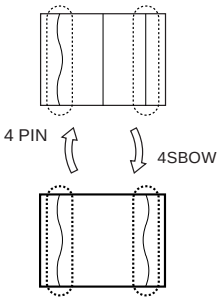
GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT

1. Adjust with GH SSKW so that the tilt of the vertical lines at both ends of the screen is symmetrical left and right.
2. Adjust with GH KEY so that there is no tilt in the vertical lines at both ends of the screen.
3. If there is a tilt on either the left or right after the GH KEY adjustment, adjust while tracking.



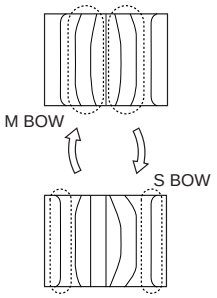
GREEN HORIZONTAL QUATERNARY ADJUSTMENT

1. Correct the quaternary distortion with GH 4PIN.
2. While balancing, correct the quaternary distortion of both end sections of the screen with GH 4SBOW.
3. While tracking, adjust with GH 4PIN and GH 4SBOW.



GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

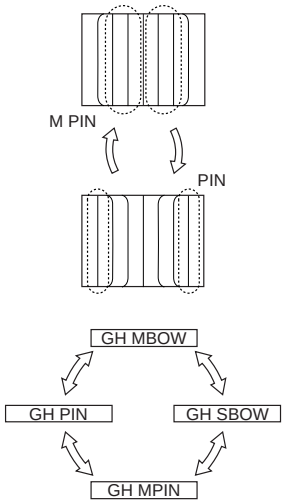
1. Adjust with GH MBOW so that the pin asymmetry at both sides of the center section of screen is symmetrical.
2. Adjust with GH SBOW so that the bow at both end sections of the screen is symmetrical left and right.
3. While tracking, adjust with GH MBOW and GH SBOW so that the bow of vertical lines on the entire screen is symmetrical left and right.



GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT

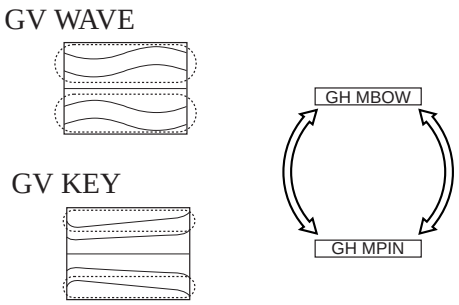
1. Adjust the pin distortion at both sides of the center section of the screen with GH MPIN.
2. Adjust the pin distortion at both end sections of the screen with GH PIN.
3. While tracking, adjust with GH MPIN and GH PIN so that the PIN of vertical lines on the entire screen have no bowing.
4. If there is asymmetrical pin distortion after the GH MPIN and GH PIN adjustments, adjust with GH MBOW and GH SBOW while tracking.

• With just the PIN AMP adjustment in MAIN, if there is no need to adjust GV PIN in SUB, this can save power.



GREEN VERTICAL WAVE (TERTIARY DISTORTION) ADJUSTMENT

1. Take the screen top and bottom horizontal lines with GV WAVE and find the secondary and quaternary waveform.
2. There is KEY distortion after the GV WAVE adjustment, so adjust with GV WAVE and GV KEY while tracking.

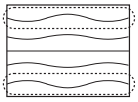


GREEN VERTICAL QUATERNARY DISTORTION ADJUSTMENT

1. Correct the quaternary distortion of the horizontal lines at the top and bottom sections of the screen with GV 4PIN.

1) Since there is no 4SBOW for vertical correction, there will be a slight imbalance, but adjust to eliminate the distortion from the horizontal line at either the top or the bottom of the screen.
2) In many cases, the horizontal lines at the top and bottom sections of the screen are not straight lines after the adjustment. As long as the secondary distortion is mild enough that it can be corrected with the PIN adjustment, this is OK.

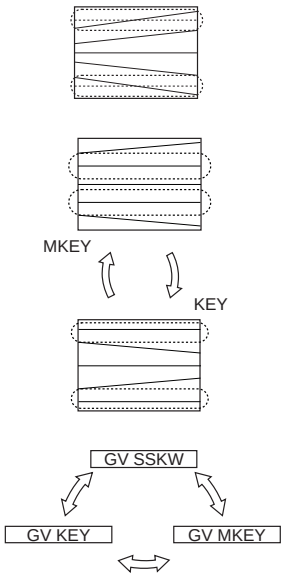
GV 4PIN



GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT

1. Adjust with GV SSKW so that the tilt of the horizontal lines at the top and bottom sections of the screen is symmetrical about the center position horizontal line.
2. Adjust with GV MKEY so that there is no tilt for the line sections at both sides of the horizontal lines at the center section of the stream.
3. Adjust with GV KEY so that there is no tilt for the horizontal lines at the top and bottom sections of the screen.
4. While tracking, adjust with GV MKEY and GV KEY so that there is no tilt for the horizontal lines on the entire screen.
5. If the tilt is unbalanced after the GV MKEY and GV KEY adjustment, adjust again with GV SSKW.

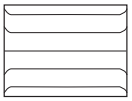
GV SSKW



GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (SECONDARY DISTORTION) ADJUSTMENT

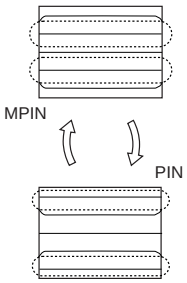
1. Correct the asymmetrical pin distortion at the top and bottom sections of the screen with GV SBOW.

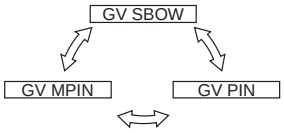
GV SBOW



GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

1. Adjust the pin distortion for both side sections and the center of the screen with GV MPIN.
2. Adjust with GV PIN so that the horizontal lines at the top and bottom sections of the screen are straight lines.
3. Adjust with GV MPIN and GV PIN so that there is no curve in the horizontal lines on the entire screen.
4. After the adjustments in Items 1-3, adjust the tracking with GV SBOW, GV MPIN, and GV PIN.





GREEN AND RED REGISTRATION ADJUSTMENT (RRH, RRV)

1. Receive a cross-hatch signal.
2. Adjust so that the red lines lay on the green lines.
   Adjust with the same procedure as the GREEN SUB adjustment.

Notes: 1. The main correction is not carried out during red registration adjustment.
2. Beware. The green adjustment items can be changed by mistake.
3. Unlike for green, adjust within the range -127 ~ +128.

GREEN AND BLUE REGISTRATION ADJUSTMENT (RBH, RBV)

1. Receive a cross-hatch signal.
2. Adjust so that the blue and green lines are on top of each other.

Notes : 1. The main correction is not carried out during RED registration adjustment.
2. Beware. The GREEN and RED adjustment items can be changed by mistake.

3-11. AGC ADJUSTMENT

1. Receive an off-air signal.
2. Adjust the AGC VR (TU 1001) so that there is no snow noise and cross-modulation.

3-12. WHITE BALANCE ADJUSTMENT

1. Receive the monoscope pattern signal and adjust the picture quality with the menu.
2. Adjust service mode SBRT so that the signal 30 IRE section barely glows.
3. Receive the all-white pattern signal.
4. Adjust the white balance with service mode GCUT and BCUT.
5. Adjust service mode SBRT so that the signal 100 IRE section barely glows.
6. Adjust the white balance with service mode GAMP and BAMP.
7. Repeatedly adjust the white balance for the minimum and maximum picture settings.

3-13. P IN P WHITE BALANCE ADJUSTMENT (MU2D, MV2D, SU2D, SV2D)

1. Receive the white pattern signal on both picture.
2. PICTURE : minimum
   COLOR : center
   BRIGHTNESS : center
   TRINTONE : medium
3. Set to P & P (◻■) mode, and to service mode.
4. Adjust white balance level of right picture with " MU2D " and " MV2D ".
5. Adjust white balance level of left picture with " SU2D " and " SV2D ".
   • Make this adjustment after adjusting the MAIN PICTURE white balance level.

SECTION 4
SAFETY RELATED ADJUSTMENTS

[G BOARD]

4-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram always check HV regulation, and if necessary re-adjust.

⧓: C514
◪: C514, C515, C516
IC651
T502,T503, T504 (FBT)
D.Y

OPERATION CHECK

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block. **(Fig.4-1)**
2. Power on the set.
3. Receive the dot signal. (PICTURE and BRIGHTNESS to minimum)
4. Check that the HV static voltmeter is reading 31.00±1.0kVdc.

HV Regulation adjustment

1. Connect a HV static voltmeter to the unconnected plug of the hight-voltage block.
2. Power on the set.
3. Receive the dot signal. (PICTURE and BRIGHTNESS to minimum)
4. If anode voltage is 32kV or higher, replace C514 of 390PF/2kV with that of 680PF/2kV, and check if the voltage is within the standard range.
5. If anode voltage is 30kV or lower, replace C514 of 390PF/2kV with that of 100PF/2kV, and check if the voltage is within the standard range. **(Fig.4-2)**

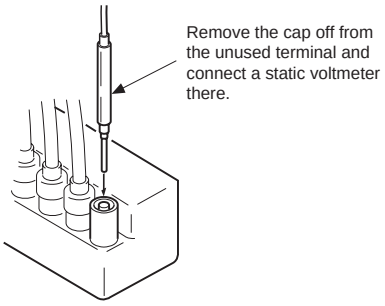


Fig. 4-1

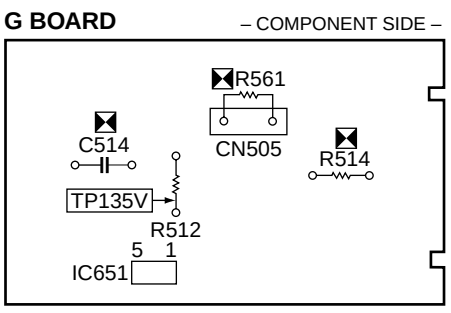


Fig. 4-2

4-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram always check hold-down voltage and if necessary re-adjust.

⧓: R514, R561
◪: C507, C513
D501, D504, D507
IC301, IC501, IC651
R502, R514, R516, R517, R539, R560, R561
T502, T503, T504 (FBT)
D.Y

OPERATION CHECK

1. Remove CN651 connecter.
2. Short-circuit across TP-PROT (R692) and ground.
3. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
4. Connect a 220k variable resistor, across pin ③ and pin ⑤ of IC651 set to maximum value.
5. Power on the set.
6. Receive the dot signal. (PICTURE and BRIGHTNESS to minimum)
7. Gradually lower the value of the variable resistor and check that the hold-down circuit operates at a static voltmeter reading of 33.5±1.0kVdc when the raster disappears.

HV HOLD-DOWN ADJUSTMENT

1. Repart steps ① ~ ⑦ as above.
2. If hold down voltage is 34.5kV or higher, remove R514, mount a resistor (390kΩ, 1/4W : RN) onto R561 instead, and check again if the hold-down voltage is within the standard range.
3. If hold down voltage is 32.5kV or lower, mount a resistor (220kΩ, 1/4W : RN) onto R561 and check again if the hold-down voltage is within the standard range. **(Fig.4-2)**

NOTE : Please finish the adjustment as soon as possible

4-3. +B MAX VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC651.

1. Supply 230VAC to with variable autotransformer.
2. Input a dot signal.
3. Set the PICTURE control and the BRIGHTNESS controls to minimum.
4. Confirm the voltage of G BOARD TP135V is less than 137.0Vdc.
5. If step 4 is not satisfied, replace IC651 and repeat above steps. **(Fig.4-2)**

4-4. +B OVP CONFIRMATION

1. Remove CN651 connector.
2. Connect a voltmeter to TP135V, and TP (PROT) and ground.
3. Connect a 220kΩ variable resistor, across pin ③ and pin ⑤ of IC651 set to maximum value.
4. Supply 220VAC to variable autotransformer.
5. Set PICTURE and the BRIGHTNESS controls to minimum.
6. Gradually turn the 220kΩ variable resistor, and check if OVP works properly when the voltage of TP135V is between 139.0 ~ 151.5V. **(Fig.4-2)**

SECTION 5
CIRCUIT ADJUSTMENTS

5-1. RF AGC

1. Input the 75% white color bars pattern signal.
2. Adjust AGC VR of TU1101 so that no snow noise, and crossmodulation disapper from the picture.
3. Verify picture quality on each channel.

5-2. BAR DISPLAY ADJUSTMENT (DISP)

1. Receive the cross-hatch signal.
2. Set to Service mode.
3. Select " DISP ", and adjust so that the blank spaces on the both sides of picture bar become equal.
4. Write the data into memory.
   MUTING → ENTER

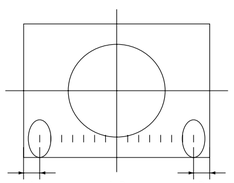


Fig. 5-1

5-3. SUB CONTRAST ADJUSTMENT (SCON)

1. Receive the 75% white color bars pattern signal.
2. PICTURE : maximum
   COLOR : minimum
   BRIGHTNESS : center
   TRINITONE : medium
   RON---1 GON---0 BON---0
3. Set to service mode.
4. Connect an oscilloscope between pin ⑥ of CN004 connector (A Board) and ground.
5. Select " SCON ", and adjust so that the wave form level is 1.65±0.05Vp-p.
6. Write the data into memory.
   MUTING → ENTER

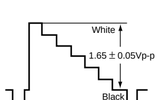


Fig. 5-2

5-4. SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

1. Receive the 75% white color bars pattern signal.
2. PICTURE : maximum
   COLOR : minimum
   BRIGHTNESS : minimum
   TRINITONE : medium
3. Set to service mode.
4. Connect an oscilloscope between pin ⑦ of CN004 connecter (A Board) and ground.
5. Select " SHUE " and " SCOL ", and adjust them to have VB1 = VB4 and VB2 = VB3 in the wave form levels.
6. Raise " SCOL " data 0 steps higher.
7. Write the data into memory.
   MUTING → ENTER

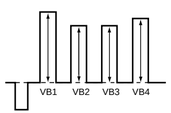


Fig. 5-3

5-5. DVD INPUT SUB HUE, SUB COLOR ADJUSTMENT (UVSH, UVSC)

1. Select video 4 input.
2. PICTURE : maximum
   COLOR : center
   BRIGHTNESS : center
   TRINITONE : medium
3. Set to service mode.
4. Connect an oscilloscope between pin ⑤ of CN303 connecter (A Board) and ground.
5. Select " UVSH " and " UVSC " , adjust them to have VB1 = VB4 and VB2 = VB3 in the wave form levels.
6. Write the data into memory.
   MUTING → ENTER

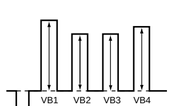
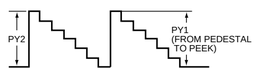


Fig. 5-4

5-6. P IN P SUB CONTRAST ADJUSTMENT (MSCN, SCON)

1. Receive the 75% white color bars pattern signal.
2. PICTURE : maximum
   COLOR : minimum
   BRIGHTNESS : center
   TRINITONE : medium
3. Set to P & P (□■) mode, and to service mode.
4. Connect an oscilloscope between pin ④ of CN305 connector (A Board) and ground.
5. Open pin ⑦ of CN301 connector (A Board).
6. Select " MSCN " and " SCON ", adjust them to have PY1 = PY2 (470 ± 20mV) in the wave form levels.
7. Write the data into memory.
   MUTING → ENTER

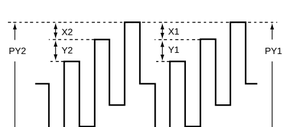


PY1 = PY2 = 470 ± 20mV.

Fig. 5-5

5-7. P IN P SUB HUE, SUB COLOR ADJUSTMENT (MSHU, SSHU, MSCL, SSCL)

1. Receive the 75% white color bars pattern signal.
2. PICTURE : maximum
   COLOR : center
   BRIGHTNESS : center
   TRINITONE : medium
3. Set to P & P (□■) mode, and to service mode.
4. Connect an oscilloscope between pin ⑤ of CN305 connector (A Board) and ground.
5. Select " MSHU " , " SSHU " , " MSCL " and " SSCL", and make adjustment sub hue and sub color so that the wave form shows X1 = Y1 and X2 = Y2.
6. Raise " UVSC " data 2 steps higher.
7. Write the data into memory.
   MUTING → ENTER

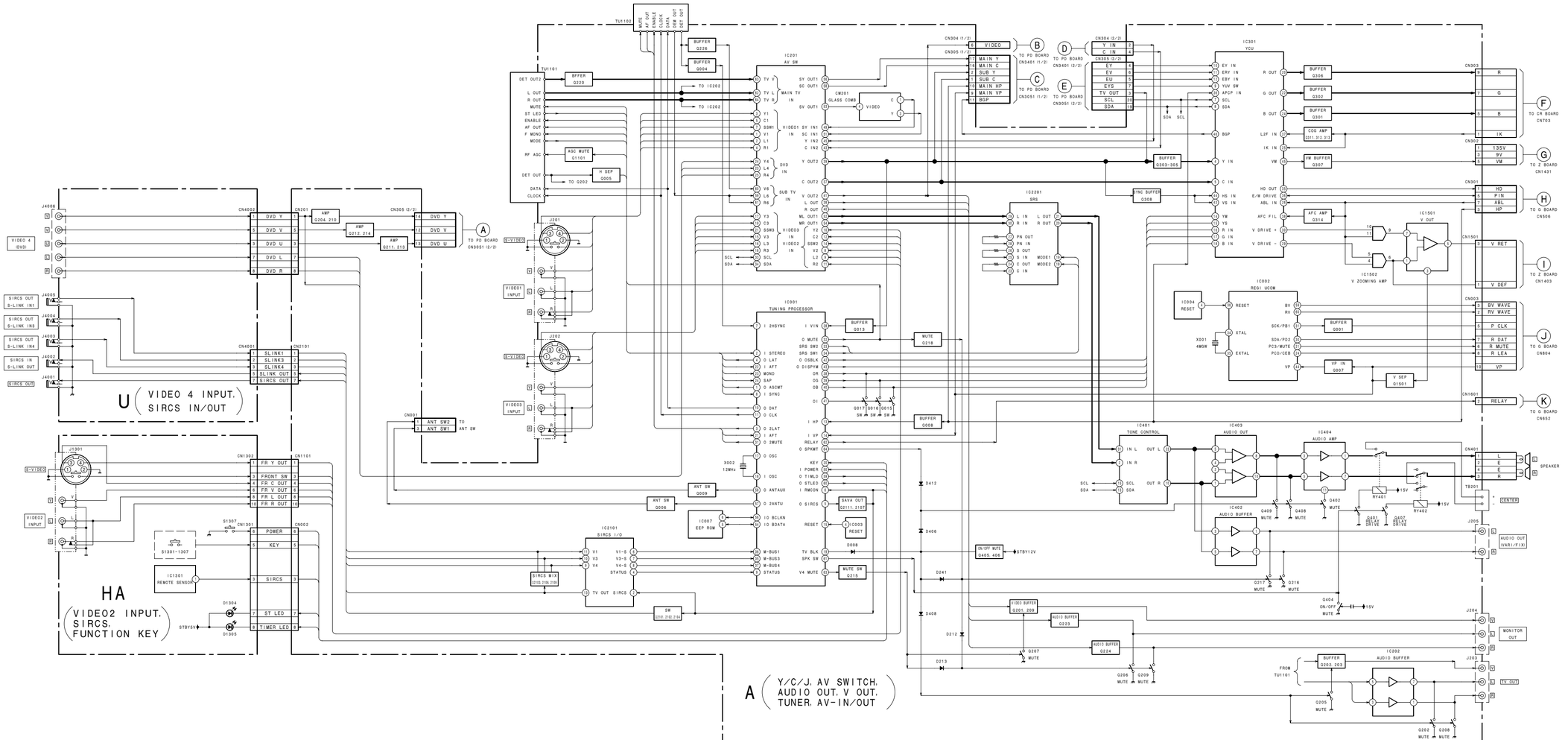


X1 = Y1
X2 = Y2
PY1 = PY2 = 750 ± 30mV.

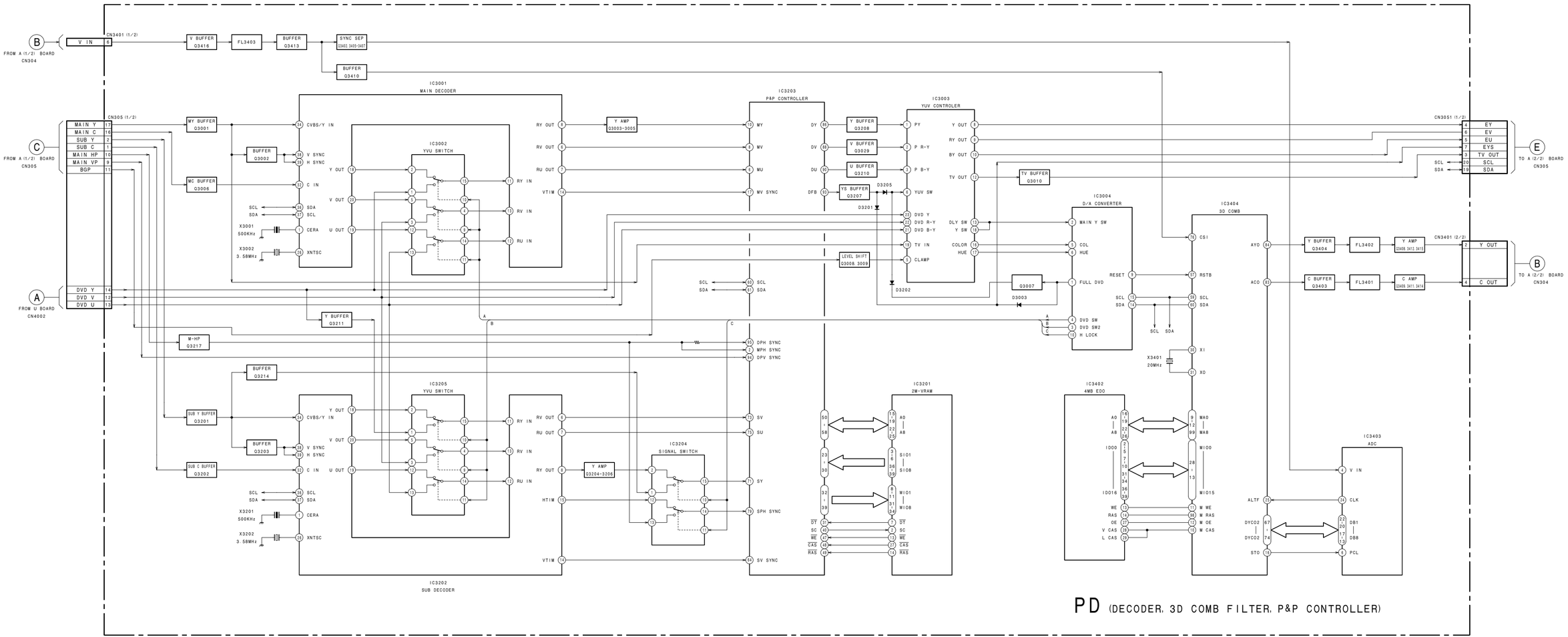
Fig. 5-6

MEMO

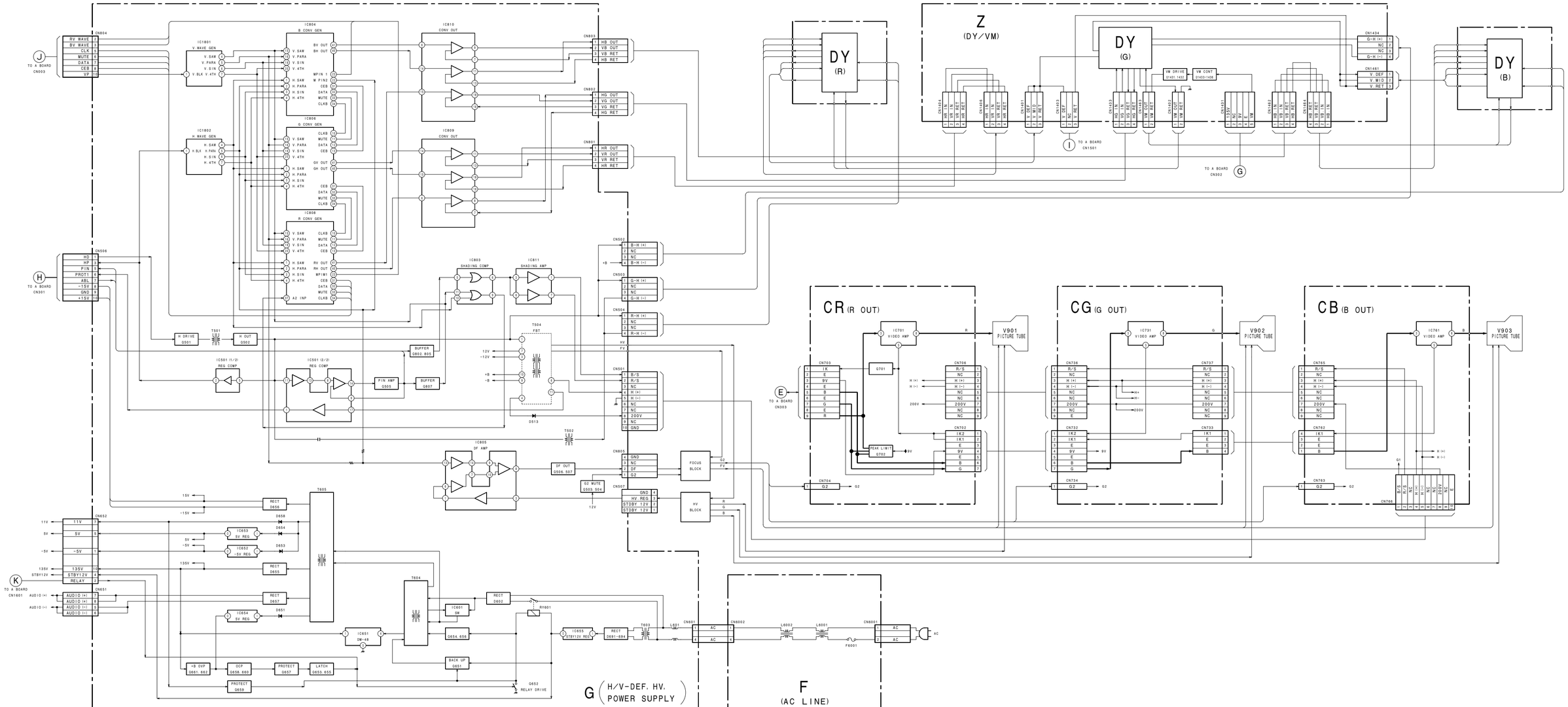
6-1. BLOCK DIAGRAM (1)



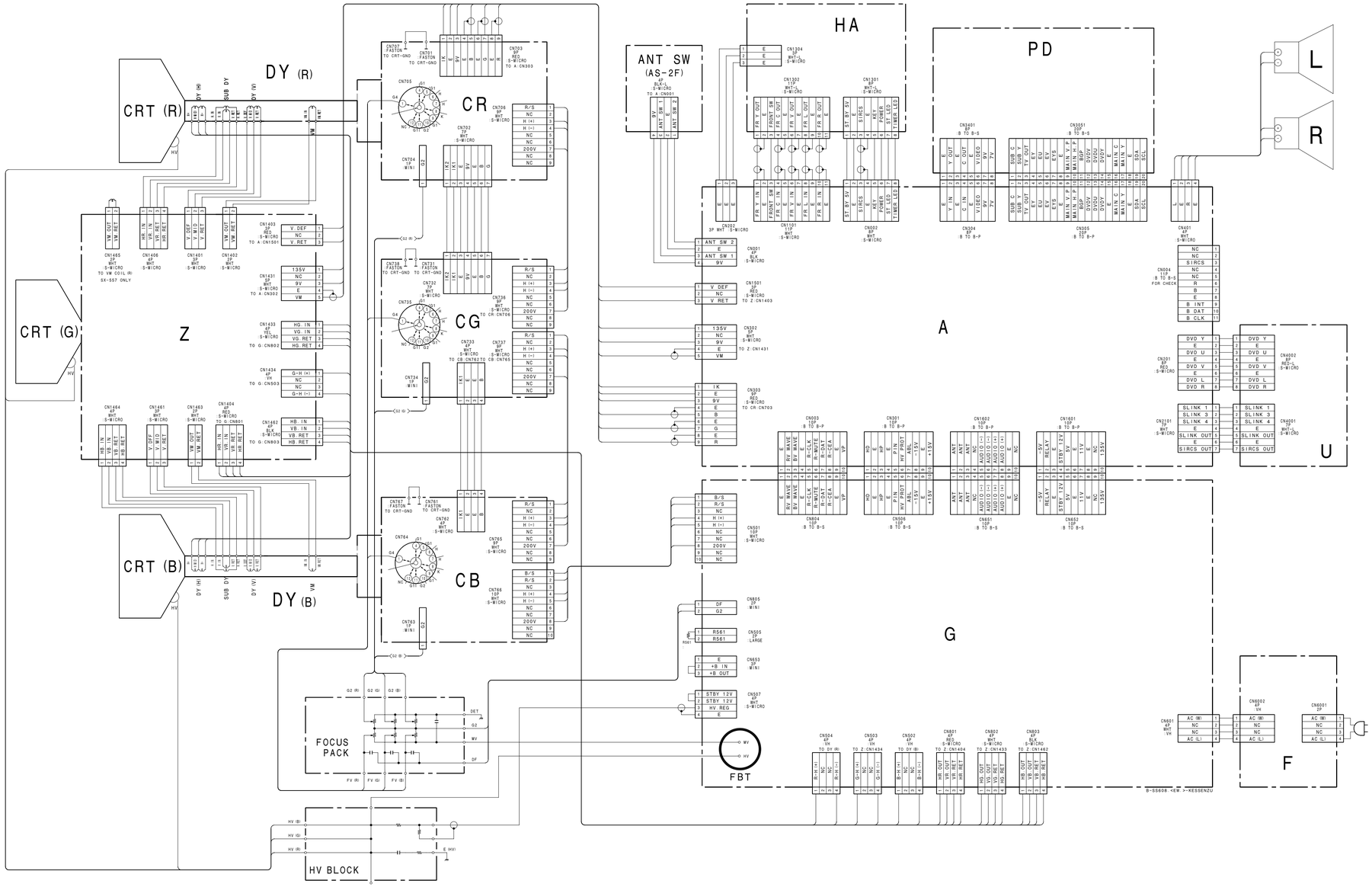
BLOCK DIAGRAM (2)



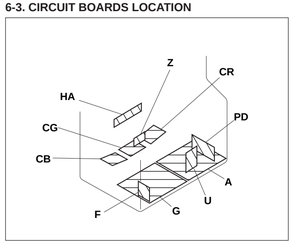
BLOCK DIAGRAM (3)



6-2. FRAME SCHEMATIC DIAGRAM



6-3. CIRCUIT BOARDS LOCATION



6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- Capacitors without voltage indication are all 50V.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

  Pitch : 5mm
  Rating electrical power : 1/4W

- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-chassis.
- The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ : make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.
  (Refer to R514,R561 and C514 adjustment on Page 47 – 48.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (◪)	Adjustment (⋈)
C514, C515, C516, IC651, T502, T503, T504, DY	HV Reagurator (C514)
C507, C513, D501, D504, D507, IC301, IC501, IC651, R502, R514, R516, R517, R539, R560, R561, T502, T503, T504, DY	HV HOLD-DOWN (R514, R561)

- As to the voltage volue shown by the semiconductors on the Shematic Diagram, see the another list
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
  + : Measurement impossibility.
- Circled numbers are waveform references.
- : B+ bus.
- : B– bus.
- : signal path.(RF)

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-SL	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The symbol ▭ display is on the component side.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

The symbol ▭ indicate fast operating fuse. Replace only with fuse of same rating as maked.

Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base / Emitter	
②	Transistor	—	Collector / Base / Emitter	
③	Diode	⊣	Cathode / Anode	
④	Diode	T	Cathode / Anode (NC)	
⑤	Diode	—	Cathode / Anode (NC)	
⑥	Diode	T	Common / Anode Cathode	
⑦	Diode	—	Common / Anode Cathode	
⑧	Diode	T	Common / Anode Anode	
⑨	Diode	—	Common / Anode Anode	
⑩	Diode	T	Common / Cathode Cathode	
⑪	Diode	—	Common / Cathode Cathode	
⑫	Diode	∣	Anode Anode Cathode / Cathode Anode Anode	
⑬	Transistor (FET)	∣	Drain / Source Gate	
⑭	Transistor (FET)	⊢	Drain / Source Gate	
⑮	Transistor (FET)	∣	□ Source □ Drain □ Gate	
–	Discrete semiconductor			

(Chip semiconductors that are not actually used are included.)

Ver.1.5

A(1/2) BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.
IC001	①	0	IC003	㊶	4.1	IC201	㉑	4.8	IC301	㊸	0	IC401	㊽	4.4
	②	0		㊷	0		㉒	3.9		㊹	0		㊾	4.4
	③	0		㊸	3.6		㉓	4.4		㊺	5.0		㊿	5.1
	④	0		㊹	4.9		㉔	3.9		㊻	5.0		①	12.1
	⑤	0		㊺	4.7		㉕	4.3		㊼	5.0		②	12.1
	⑥	4.2		㊻	0		㉖	4.3		㊽	6.7		③	12.1
	⑦	0		㊼	0		㉗	GND		㊾	0.9	IC402	④	GND
	⑧	0		㊽	GND		㉘	GND		㊿	6.5		⑤	12.1
	⑨	0		㊾	2.4		㉙	GND		①	0.8		⑥	12.1
	⑩	0		㊿	2.1		㉚	GND		②	6.7		⑦	12.1
	⑪	0		①	4.9		㉛	4.7		③	0.8		⑧	24.3
	⑫	4.9		②	GND		㉜	4.6		④	4.1		⑨	12.1
	⑬	4.3		③	GND		㉝	GND		⑤	1.5		⑩	12.1
	⑭	0		④	GND		㉞	4.2		⑥	5.4	IC403	⑪	GND
	⑮	5.0	IC002	⑤	GND		㉟	4.4		⑦	0.6		⑫	12.1
	⑯	GND		⑥	GND		㊱	4.0		⑧	2.9		⑬	12.1
	⑰	2.5		⑦	4.8		㊲	4.3		⑨	3.0		⑭	12.1
	⑱	2.2		⑧	GND	IC301	㊳	4.3		⑩	3.8		⑮	12.1
	⑲	0		⑨	GND		㊴	8.9		⑪	4.2		⑯	24.3
	⑳	5.0		⑩	GND		㊵	4.7		⑫	4.6		⑰	1.6
	㉑	2.1		⑪	4.6		㊶	GND		⑬	8.7		⑱	0
	㉒	2.2		⑫	4.6		㊷	4.7		⑭	3.4		⑲	GND
	㉓	0		⑬	4.5		㊸	GND		⑮	3.4		⑳	0
	㉔	0		⑭	1.5		㊹	GND		⑯	4.1		㉑	1.6
	㉕	GND		⑮	GND		㊺	0		⑰	4.1		㉒	10.9
	㉖	1.7		⑯	GND		㊻	3.9		⑱	2.3	IC404	㉓	15.3
	㉗	2.6		⑰	4.9		㊼	4.4		⑲	GND		㉔	3.6
	㉘	2.3		⑱	4.9		㊽	4.3		⑳	2.6		㉕	32.2
	㉙	5.0		⑲	GND		㊾	4.3		㉑	2.7		㉖	GND
	㉚	1.8	IC003	⑳	GND		㊿	3.5		㉒	3.9		㉗	2.8
	㉛	0		㉑	GND		①	4.4		㉓	3.0		㉘	14.7
	㉜	0		㉒	5.0		②	3.1		㉔	5.7		①	8.9
	㉝	0		㉓	5.0		③	GND		㉕	0.3	IC1101	②	GND
	㉞	0	IC004	㉔	GND		④	4.7		㉖	0		③	5.0
	㉟	0		㉕	4.9		⑤	4.3		㉗	GND		④	1.2
	㊱	0		㉖	4.9		⑥	4.2		㉘	GND		⑤	14.8
	㊲	0		㉗	GND		⑦	4.3		㉙	GND		⑥	-14.2
	㊳	0		㉘	GND		⑧	4.2		㉚	GND	IC1501	⑦	-15.3
	㊴	0		㉙	GND		⑨	4.4		㉛	GND		⑧	0.4
IC007	㊵	0		㉚	GND		⑩	4.4		㉜	GND		⑨	14.8
	㊶	0		㉛	4.6		⑪	4.4		㉝	GND		⑩	1.3
	㊷	0		㉜	4.5		⑫	4.4		㉞	GND		⑪	-0.3
	㊸	0		㉝	GND		⑬	4.4		㉟	GND		⑫	0
	㊹	2.7		㉞	5.0	IC202	⑭	GND		㊱	GND		⑬	0
	㊺	2.7		㉟	3.9		⑮	4.4		㊲	GND		⑭	0
	㊻	4.9		㊱	4.4		⑯	8.9		㊳	GND	IC1502	⑮	GND
	㊼	4.9		㊲	3.9		⑰	4.4		㊴	3.9		⑯	0
	㊽	GND		㊳	4.4		⑱	8.8		㊵	4.6		⑰	3.9
	㊾	GND		㊴	4.3	IC401	⑲	2.1		㊶	4.7		⑱	-0.3
	㊿	4.7		㊵	4.8		⑳	5.6		㊷	GND		⑲	4.9
	①	0		㊶	3.9		㉑	3.9		㊸	3.9		⑳	-5.1
	②	0	IC201	㊷	0.4		㉒	3.9		㊹	0.8	IC1601	㉑	10.5
	③	4.6		㊸	3.9		㉓	3.9		㊺	1.9		㉒	GND
	④	4.5		㊹	4.4		㉔	8.9		㊻	0		㉓	8.9
	⑤	4.5		㊺	4.3	IC301	㉕	4.8		㊼	0		㉔	10.5
	⑥	4.7		㊻	4.8		㉖	4.8		㊽	4.4	IC1602	㉕	11.9
	⑦	5.0		㊼	3.9		㉗	0		㊾	4.4		㉖	GND
	⑧	0		㊽	4.4		㉘	6.4		㊿	4.4		㉗	5.0
	⑨	4.0		㊾	3.9		㉙	6.1		①	4.4	IC1603	㉘	10.5
	⑩	0		㊿	4.3		㉚	6.1		②	4.4		㉙	GND
	⑪	0		①	4.3		㉛	GND		③	4.4		㉚	8.9
										④	4.4		㉛	10.5

•All voltage are in V.

•Pin number which are not described are not used.

• A(1/2) BOARD WAVEFORMS

1 — 1.1Vp-p (H)

2 — 1.6Vp-p (H)

3 — 1.7Vp-p (H)

4 — 2.4Vp-p (H)

5 — 2.2Vp-p (H)

6 — 1.7Vp-p (H)

7 — 4.5Vp-p (H)

8 — 4.9Vp-p (H)

9 — 4.9Vp-p (V)

10 — 3.9Vp-p (12MHz)

11 — 1.9Vp-p (H)

12 — 2.6Vp-p (3.58MHz)

13 — 2.0Vp-p (H)

14 — 1.6Vp-p (H)

15 — 2.4Vp-p (H)

16 — 2.3Vp-p (H)

17 — 2.3Vp-p (H)

18 — 1.9Vp-p (H)

19 — 1.9Vp-p (H)

20 — 0.2Vp-p (500kHz)

21 — 4.6Vp-p (H)

22 — 6.0Vp-p (H)

23 — 1.3Vp-p (V)

24 — 1.3Vp-p (V)

25 — 60Vp-p (V)

26 — 5.4Vp-p (4MHz)

27 — 4.9Vp-p (V)

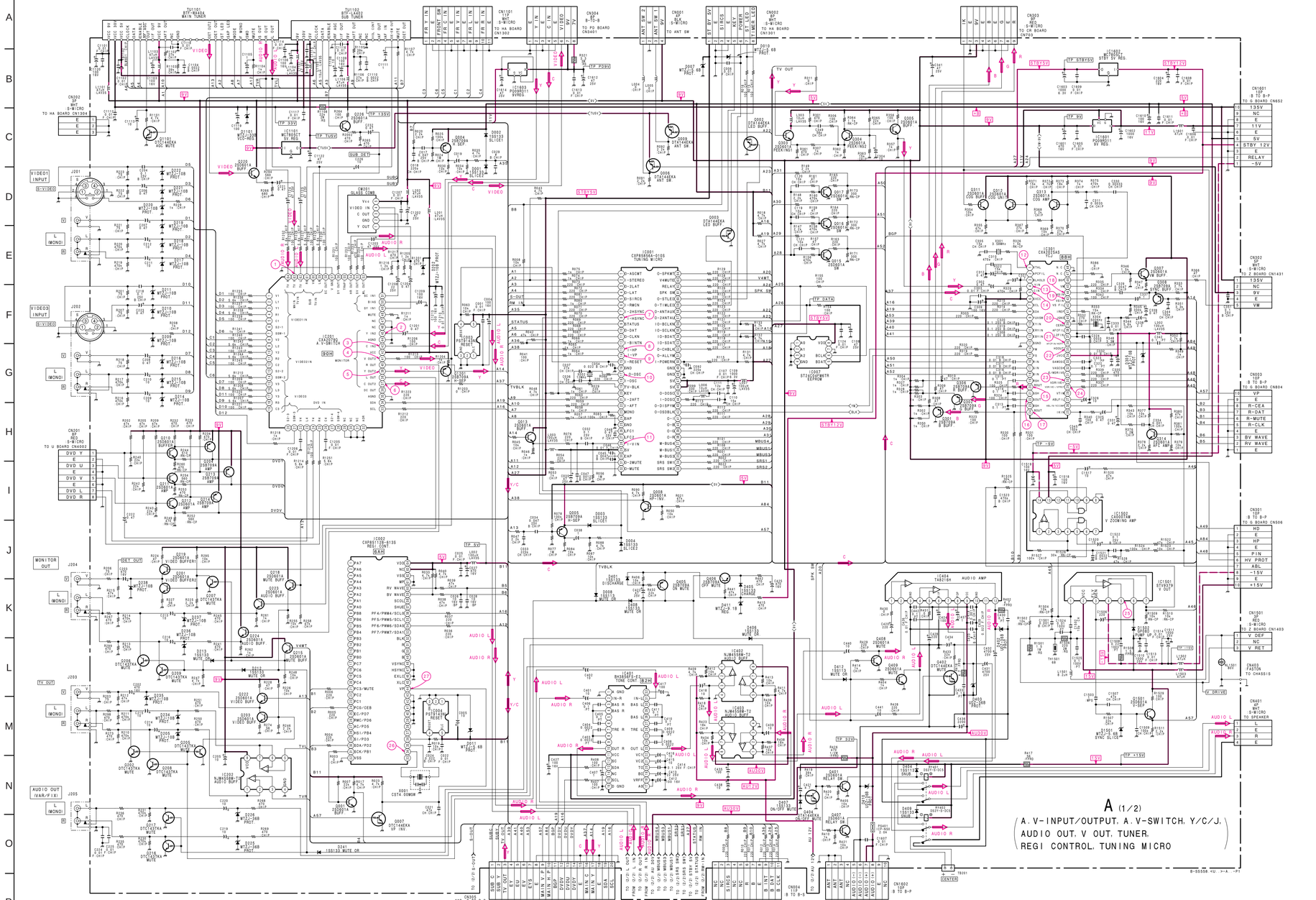
A (1/2) BOARD TRANSISTOR VOLTAGE LIST

REF.		VOL.	REF.		VOL.	REF.		VOL.
Q001	B	0	Q208	B	0	Q304	B	3.5
	E	GND		E	GND		E	2.9
	C	4.8		C	0		C	6.6
Q002	B	0		B	0		B	6.6
	E	2.0	Q209	E	GND	Q305	E	5.9
	C	GND		C	0		C	8.2
Q003	B	3.8		B	2.8		B	1.0
	E	3.8	Q210	E	2.1	Q306	E	1.7
	C	GND		C	8.2		C	GND
Q004	B	5.4		B	2.8		B	5.0
	E	4.9	Q211	E	2.2	Q307	E	4.4
	C	1.0		C	8.2		C	8.9
Q005	B	4.9		B	2.8		B	4.0
	E	4.9	Q212	E	2.2	Q308	E	4.6
	C	0.7		C	8.2		C	GND
Q006	B	8.8		B	8.2		B	3.9
	E	8.9	Q213	E	8.9	Q311	E	5.2
	C	0		C	3.9		C	8.9
Q007	B	0.1		B	8.2		B	5.7
	E	GND	Q214	E	8.9	Q312	E	5.2
	C	4.8		C	3.9		C	8.9
Q008	B	0.1		B	0		B	5.3
	E	GND	Q215	E	0	Q313	E	4.8
	C	4.3		C	8.8		C	7.5
Q009	B	0		B	0		B	1.5
	E	5.1	Q216	E	GND	Q314	E	1.0
	C	4.8		C	0		C	4.4
Q013	B	3.9		B	0		B	0
	E	3.2	Q217	E	GND	Q401	E	GND
	C	5.0		C	0		C	14.8
Q015	B	-0.8		B	0	Q402	B	2.0
	E	GND	Q218	E	0		E	GND
	C	0		C	8.8		C	0
Q016	B	-0.8		B	4.3	Q403	B	0.2
	E	GND	Q219	E	3.6	Q404	E	GND
	C	0		C	8.3		C	0
Q017	B	-0.8		B	4.4	Q405	B	8.7
	E	GND	Q220	E	3.8		E	8.6
	C	0		C	8.9		C	-2.5
Q201	B	1.5	Q222	B	4.3	Q406	B	8.7
	E	0.8		E	3.6		E	8.6
	C	3.6		C	8.1		C	-2.5
Q202	B	0	Q223	B	1.5	Q407	B	0
	E	GND		E	1.0		E	GND
	C	0		C	8.9		C	14.8
Q203	B	1.5	Q224	B	1.4	Q408	B	0.7
	E	0.9		E	0.9		E	GND
	C	3.7		C	8.9		C	0
Q204	B	8.2	Q226	B	4.3	Q409	B	0.7
	E	8.9		E	3.7		E	GND
	C	0		C	8.5		C	0
Q205	B	0	Q301	B	1.0	Q1101	B	0
	E	GND		E	1.7		E	GND
	C	1.5		C	GND		C	2.9
Q206	B	0	Q302	B	1.0	Q1201	B	4.0
	E	GND		E	1.7		E	4.6
	C	0		C	GND		C	GND
Q207	B	0	Q303	B	3.4	Q1501	B	-0.4
	E	GND		E	2.7		E	0.1
	C	1.5		C	8.9		C	14.8

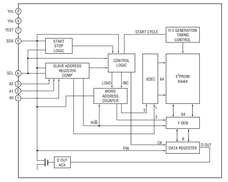
•All voltage are in V.

Schematic diagram

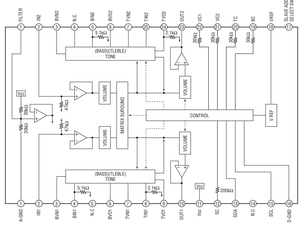
A(1/2) board ➡



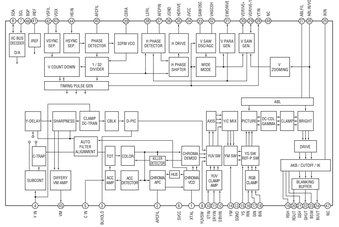
A(1/2) BOARD : IC007 ST24C04FM6TR



A(1/2) BOARD : IC401 BH3856FS-E2



A(1/2) BOARD : IC301 CXA2025AS



A/D BOARD TRANSISTOR VOLTAGE LIST

REF.		VOL.
Q2101	B	0.7
	E	GND
	C	0.3
Q2102	B	4.8
	E	4.2
	C	5.0
Q2103	B	5.0
	E	0
	C	0
Q2104	B	4.3
	E	5.0
	C	5.0
Q2106	B	5.0
	E	0
	C	0
Q2107	B	4.7
	E	5.0
	C	4.6
Q2109	B	5.0
	E	0
	C	0
Q2111	B	0.1
	E	GND
	C	3.8

•All voltage are in V.

A(2/2) BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.
IC2101	①	5.0	IC2201	①	6.3
	②	4.2		②	6.3
	③	5.0		③	6.3
	④	0		④	6.3
	⑤	0		⑤	6.3
	⑥	0		⑥	12.7
	⑦	0		⑦	GND
	⑧	0		⑧	0
	⑨	0		⑨	6
	⑩	0		⑩	6.3
	⑪	0		⑪	6.3
	⑫	0.5		⑫	6.3
	⑬	GND		⑬	6.3
	⑭	6.3		⑭	6.3
	⑮	6.3		⑮	6.3
	⑯	6.3		⑯	6.3
	⑰	6.3		⑰	6.3
	⑱	6.3		⑱	6.3
	⑲	6.3		⑲	6.3
	⑳	6.3		⑳	6.3
	㉑	6.3		㉑	25.9
	㉒	6.3	IC2202	①	0.7
	㉓	6.3		②	12.7

•All voltage are in V.
•Pin number which are not described are not used.

A BOARD

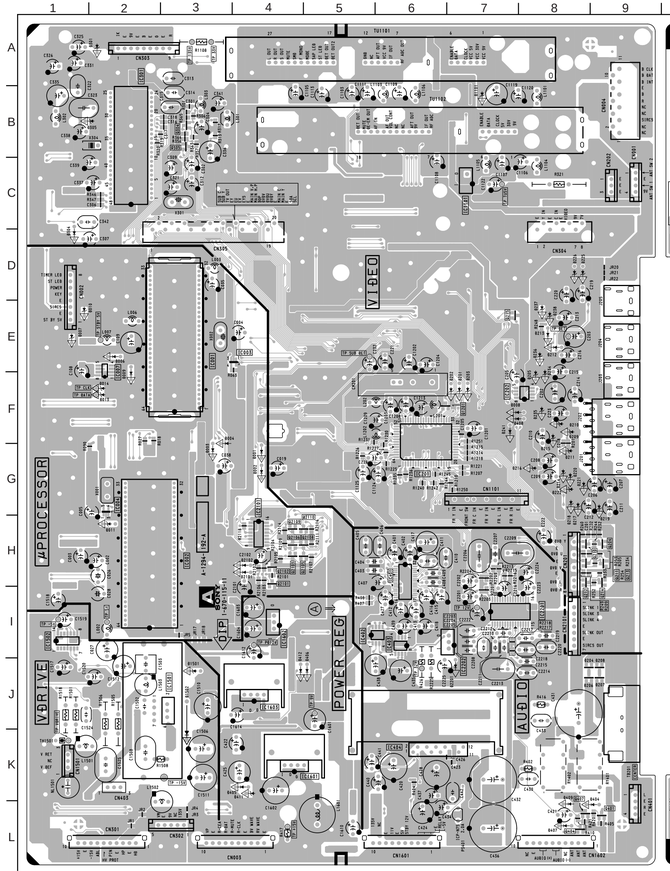
DIODE

D001	G-4,G-15	-	D219	G-9,G-10	-	D409	L-8,L-12	-	Q015	E-17	①	Q219	E-12	①	Q405	K-15	①	IC003	E-4
D002	G-4,G-15	-	D220	G-8,G-11	-	D410	K-13	-	Q016	D-17	①	Q220	E-13	①	Q406	K-15	②	IC004	G-2
D003	G-3,G-16	-	D221	G-8,G-11	-	D411	K-4	-	Q017	D-17	②	Q222	F-12	①	Q407	L-9	①	IC007	E-2
D004	G-3,G-16	-	D222	G-8	-	D1101	B-7	-	Q201	E-12	①	Q223	E-11	①	Q408	K-13	①	IC201	F-6
D007	E-1,E-18	-	D225	D-8,D-11	-	D1501	J-3,J-16	-	Q202	F-11	①	Q224	E-12	①	Q409	K-13	②	IC202	F-8
D008	F-8,F-12	-	D226	D-8,D-11	-	D1502	J-3,J-16	-	Q203	F-11	②	Q225	F-14	①	Q1101	A-13	①	IC301	B-2,B-17
D009	E-1,E-18	-	D234	F-8,F-11	-	D2101	H-4,H-15	-	Q204	H-9	①	Q301	B-17	①	Q1201	F-7	①	IC401	H-6
D010	E-1,E-18	-	D235	F-8,F-11	-	D2102	H-4,H-15	-	Q205	F-11	①	D302	A-17	①	Q1501	J-16	①	IC402	I-6
D011	H-2,H-17	-	D236	E-8,E-11	-	D2201	J-7,J-12	-	Q206	E-11	①	D303	B-16	①	Q2101	H-4	①	IC403	I-6
D202	F-7,F-13	-	D237	E-8,E-11	-				Q207	E-11	①	Q304	B-3	①	Q2102	H-4	②	IC404	K-6,K-13
D205	F-8,F-11	-	D238	E-8,E-11	-	**TRANSISTOR**			Q208	F-11	①	Q305	B-3	①	Q2103	H-4	①	IC1101	C-7,C-12
D209	F-8,F-11	-	D241	F-7	-	Q001	G-16	①	Q209	E-11	①	Q306	A-16	①	Q2104	H-15	②	IC1501	J-3,J-17
D210	F-8,F-11	-	D305	B-2,B-18	-	Q002	F-17	①	Q210	H-9	②	Q307	C-18	①	Q2106	H-4	①	IC1502	I-1
D211	G-8	-	D401	K-15	-	Q003	F-17	②	Q211	H-9	①	Q308	C-18	①	Q2107	I-15	①	IC1601	K-4,K-15
D212	E-8,E-11	-	D402	K-12	-	Q004	G-15	①	Q212	H-9	②	Q311	A-18	①	Q2108	H-5	②	IC1602	I-4,I-15
D213	E-8,E-11	-	D403	K-13	-	Q005	G-15	②	Q213	H-9	①	Q312	A-18	①	Q2109	H-4	①	IC1603	J-4,J-15
D214	G-8,G-11	-	D404	L-9	-	Q006	B-10	①	Q214	H-9	②	Q313	B-17	①	Q2111	H-15	②	IC2101	H-4
D215	F-8,F-11	-	D405	K-4	-	Q007	H-17	①	Q215	E-9	②	Q314	B-18	①				IC2201	I-7
D216	G-8,G-11	-	D406	L-11	-	Q008	F-18	①	Q216	E-10	①	Q401	L-9	①	**IC**			IC2202	I-7,I-13
D217	G-8,G-11	-	D407	L-8	-	Q009	B-10	①	Q217	D-11	①	Q402	L-13	①	IC001	E-3,E-16			
D218	G-8,G-11	-	D408	F-8,F-12	-	Q013	D-16	①	Q218	G-12	①	Q404	L-8	②	IC002	H-2,H-15			

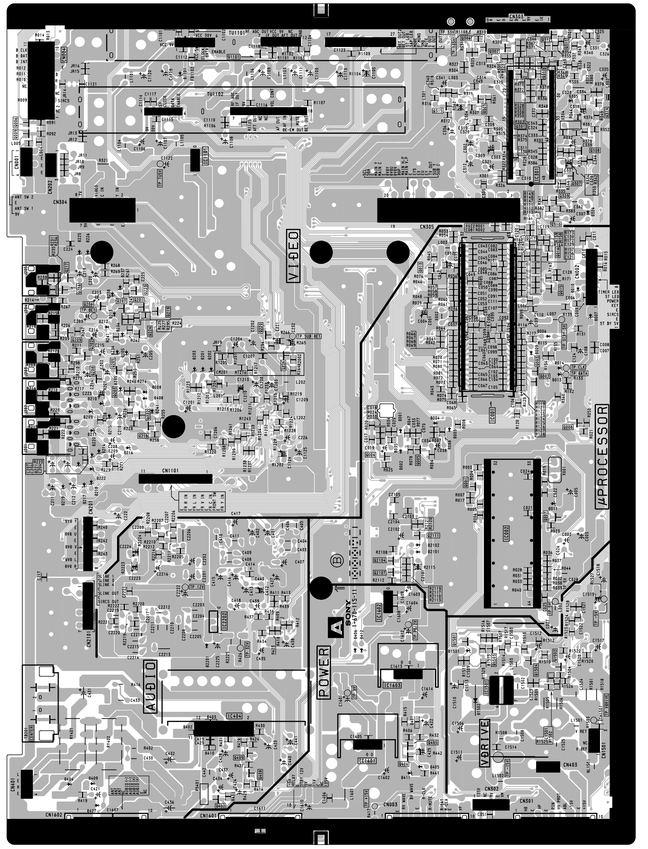
NOTE:
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

A [AV-INPUT/OUTPUT, AV-SWITCH, Y/C/J, AUDIO OUT, V OUT, TUNER, REGI CONTROL, TUNING MICRO, SIRCS I/O, SRS]

– A Board –



< Component Side >



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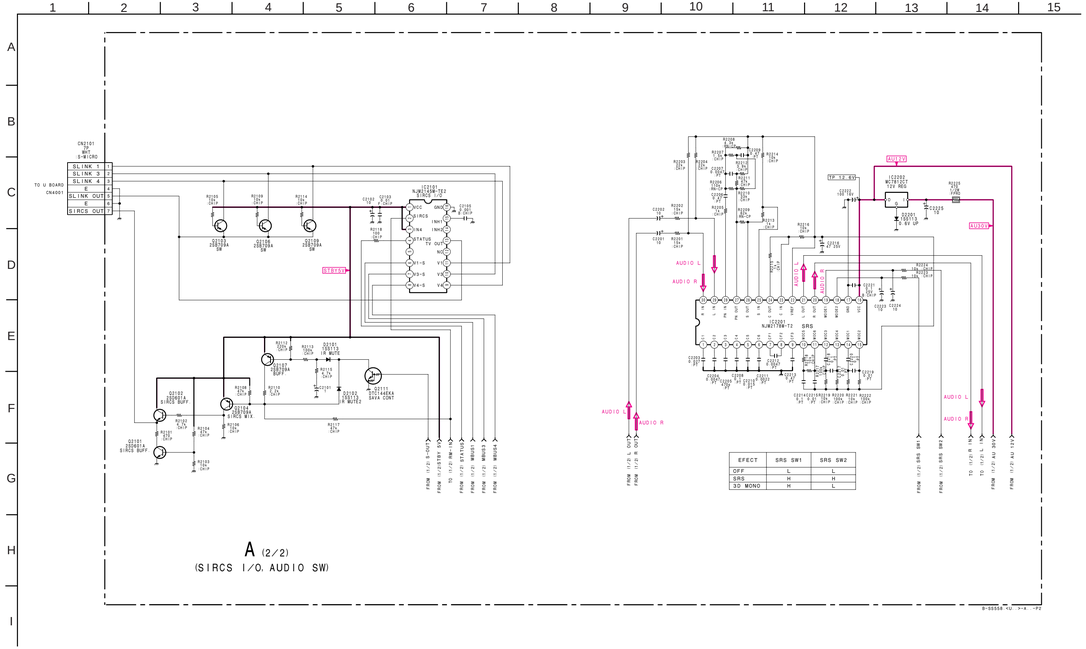
CN2101
TO U BOARD
CN4301
SL-LINK 1
SL-LINK 3
SL-LINK 4
SL-LINK OUT
SIRCS OUT
NJM2068-T2
SIRCS
SIRCS BUFF
AUDIO L
AUDIO R
NJM2068-T2
SRS
NJM2068-T2
AUDIO
TP-12.6V
IC2202
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AUDIO R
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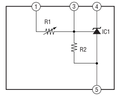
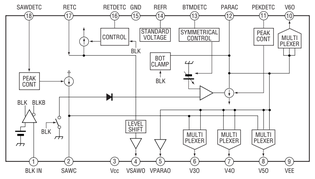
FROM I/O
FROM I/O
FROM I/O

G BOARD : IC651 DM-58



G BOARD : IC801,802 PA0053B



G BOARD TRANSISTOR VOLTAGE LIST

REF.		VOL.	REF.		VOL.
Q501	B	-0.4	Q657	B	4.9
	E	GND		E	4.9
	C	47.0		C	0
Q502	B	0	Q658	B	0.6
	E	GND		E	0.4
	C	140.0		C	4.9
Q503	B	0.5	Q659	B	17.6
	E	2.4		E	17.6
	C	0		C	0
Q504	B	0	Q660	B	0.6
	E	GND		E	GND
	C	0.5		C	0.6
Q505	G	9.9	Q661	B	3.1
	D	21.9		E	2.4
	S	GND		C	5.2
Q506	B	1.7	Q662	B	2.7
	E	1.1		E	2.4
	C	11.3		C	4.9
Q507	B	12.1	Q802	B	4.0
	E	11.5		E	4.9
	C	138.2		C	2.3
Q651	B	11.2	Q803	B	2.3
	E	11.9		E	0.5
	C	11.9		C	0
Q652	B	0.7	Q804	B	0
	E	GND		E	GND
	C	0		C	0.5
Q653	B	0	Q805	B	2.3
	E	GND		E	1.7
	C	1.7		C	12.1
Q654	B	13.6	Q809	B	-15.3
	E	14.0		E	-15.3
	C	GND		C	-14.3
Q655	B	1.7	Q810	B	-15.3
	E	1.7		E	-15.3
	C	0		C	-14.5
	B	0			
Q656	E	GND			
	C	13.6			

All voltages are in V.

• G BOARD WAVEFORMS

① 4.8Vp-p (H)	② 25.0Vp-p (H)	③ 2.4Vp-p (H)	④ 2.2Vp-p (H)
⑤ 2.4Vp-p (H)	⑥ 5.0Vp-p (V)	⑦ 2.5Vp-p (V)	⑧ 2.5Vp-p (V)
⑨ 2.4Vp-p (V)	⑩ 2.4Vp-p (V)	⑪ 4.8Vp-p (H)	⑫ 2.8Vp-p (V)
⑬ 0.7Vp-p (H)	⑭ 2.6Vp-p (V)	⑮ 0.2Vp-p (H)	⑯ 2.8Vp-p (V)
⑰ 0.6Vp-p (H)	⑱ 2.7Vp-p (V)	⑲ 22.0Vp-p (V)	⑳ 10.0Vp-p (V)
㉑ 0.7Vp-p (H)	㉒ 2.5Vp-p (V)	㉓ 15.0Vp-p (V)	㉔ 0.2Vp-p (H)
㉕ 6.0Vp-p (H)	㉖ 22.0Vp-p (V)	㉗ 2.6Vp-p (V)	㉘ 0.6Vp-p (H)
㉙ 7.0Vp-p (H)	㉚ 500.0Vp-p (V)	㉛ 80.0Vp-p (H)	㉜ 1100Vp-p (H)
㉝ 12.0Vp-p (H)	㉞ 4.8Vp-p (H)	㉟ 4.8Vp-p (H)	

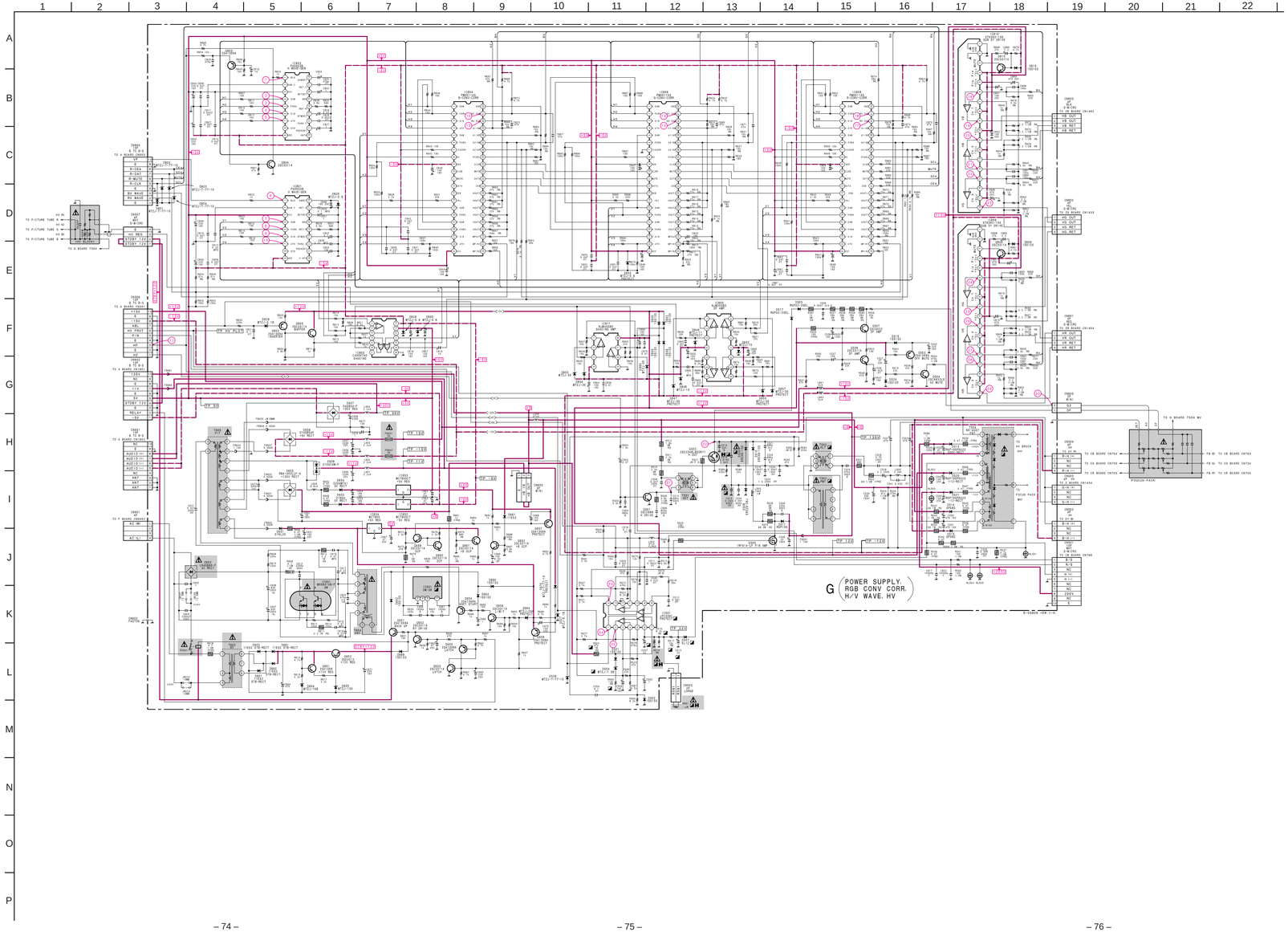
G BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.
IC501	①	3.4	IC802	①	0.5	IC804	⑯	0	IC806	㉔	0	IC808	㉔	0
	②	0.7		②	1.1		⑮	0.5		㉓	0		㉓	0
	③	12.1		③	4.9		⑭	4.7		㉒	0		㉒	0
	④	3.3		④	0		⑬	0.1		㉑	0		㉑	0
	⑤	1.8		⑤	-0.9		⑫	4.9		⑳	0		⑳	-0.2
	⑥	7.9		⑥	0		⑪	4.8		⑲	0.4		⑲	0.4
	⑦	8.1		⑦	-1.0		⑩	0		⑱	4.7		⑱	GND
	⑧	0		⑧	-5.1		⑨	0.1		⑰	4.9		①	GND
	⑨	2.2		⑨	0		⑧	0		⑯	4.9		②	GND
	⑩	5.5		⑩	-0.9		⑦	0		⑮	4.8		③	GND
	⑪	1.8		⑪	0.3		⑥	0		⑭	0		④	-14.3
	⑫	GND		⑫	1.2		⑤	0		⑬	0		⑤	-15.3
	⑬	1.4		⑬	GND		④	0		⑫	0.2		⑥	14.5
	⑭	9.9		⑭	-1.9		③	GND		⑪	0		⑦	-0.1
	⑮	GND		⑮	1.2		②	7.2		⑩	0		⑧	0.1
	⑯	-1.9		⑯	-1.1		①	7.2		⑨	0		⑨	-15.3
●IC601	①	136.0		①	-0.4		⑳	7.0		⑧	0.1	IC809	⑩	-0.2
	②	274.0		②	-0.4		⑲	12.1		⑦	GND		⑪	14.5
	③	136.0		③	-0.3		⑱	0		⑥	0		⑫	0.3
	④	134.0		④	-0.3		⑰	0		⑤	-0.9		⑬	-15.3
	⑤	134.0		⑤	1.6		⑯	0		④	0		⑭	0.3
IC651	①	2.4	IC803	①	0.3	IC805	⑮	-0.8		③	-1.0		⑮	0.3
	②	13.8		②	GND		⑭	0		②	0		⑯	-0.2
	③	GND		③	0		⑬	0		①	-0.4		⑰	-0.2
	④	-11.5		④	0		⑫	-12.3		⑳	4.9		⑱	-15.3
IC652	G	GND		⑤	0		⑪	0		⑲	4.9		⑲	-0.4
	O	-5.1		⑥	4.9		⑩	0		⑱	-5.1		⑳	GND
	I	10.6		⑦	-5.1		⑨	0.8		⑰	4.8		㉑	GND
IC653	G	GND		⑧	0		⑧	0		⑯	4.9		㉒	-14.5
	O	4.9		⑨	-0.9		⑦	-0.9		⑮	0.1		㉓	-15.3
	I	18.0		⑩	0		⑥	4.7		⑭	4.7		㉔	14.5
IC654	G	GND		⑪	-1.0		⑤	-1.0		⑬	-2.1		①	0.2
	O	5.0		⑫	0		④	0		⑫	0		②	0.2
	I	15.7		⑬	-0.4		③	-0.4		⑪	-0.8		③	-15.3
IC655	G	GND		⑭	-5.1		②	GND	IC808	⑩	0		④	0.3
	O	11.9		⑮	4.9		①	4.9		⑨	-0.9		⑤	14.5
	I	0.2		⑯	-5.1		⑳	-5.1		⑧	0	IC810	⑥	0.1
	①	1.2	IC804	①	-2.2	IC806	⑲	4.8		⑦	-0.5		⑦	-15.3
	②	4.9		②	0		⑱	4.9		⑥	4.9		⑧	0
	③	0		③	-0.8		⑰	0.1		⑤	0.1		⑨	0
	④	-0.8		④	0		⑯	4.7		④	0		⑩	0.1
	⑤	0		⑤	-0.9		⑮	-2.1		③	0		⑪	0.1
	⑥	-1.1		⑥	0		⑭	0		②	-0.5		⑫	-15.3
IC803	⑦	-5.1		⑦	-0.8		⑬	-0.8		①	0		⑬	0.2
	⑧	0.4		⑧	4.9		⑫	0		⑳	0		⑭	-1.2
	⑨	-0.9		⑨	0		⑪	-0.9		⑲	0		⑮	-0.3
	⑩	0.3		⑩	-0.1		⑩	0		⑱	0.2	IC811	⑯	-0.3
	⑪	1.2		⑪	0		⑨	-0.5		⑰	0.2		⑰	-12.3
	⑫	GND		⑫	-0.4		⑧	4.9		⑯	4.7		⑱	GND
	⑬	-1.5		⑬	0		⑦	-0.4		⑮	0		⑲	0
	⑭	1.2		⑭	0		⑥	0		⑭	4.9		⑳	0.6
	⑮	-1.6		⑮	0		⑤	0		⑬	4.8		㉑	12.1

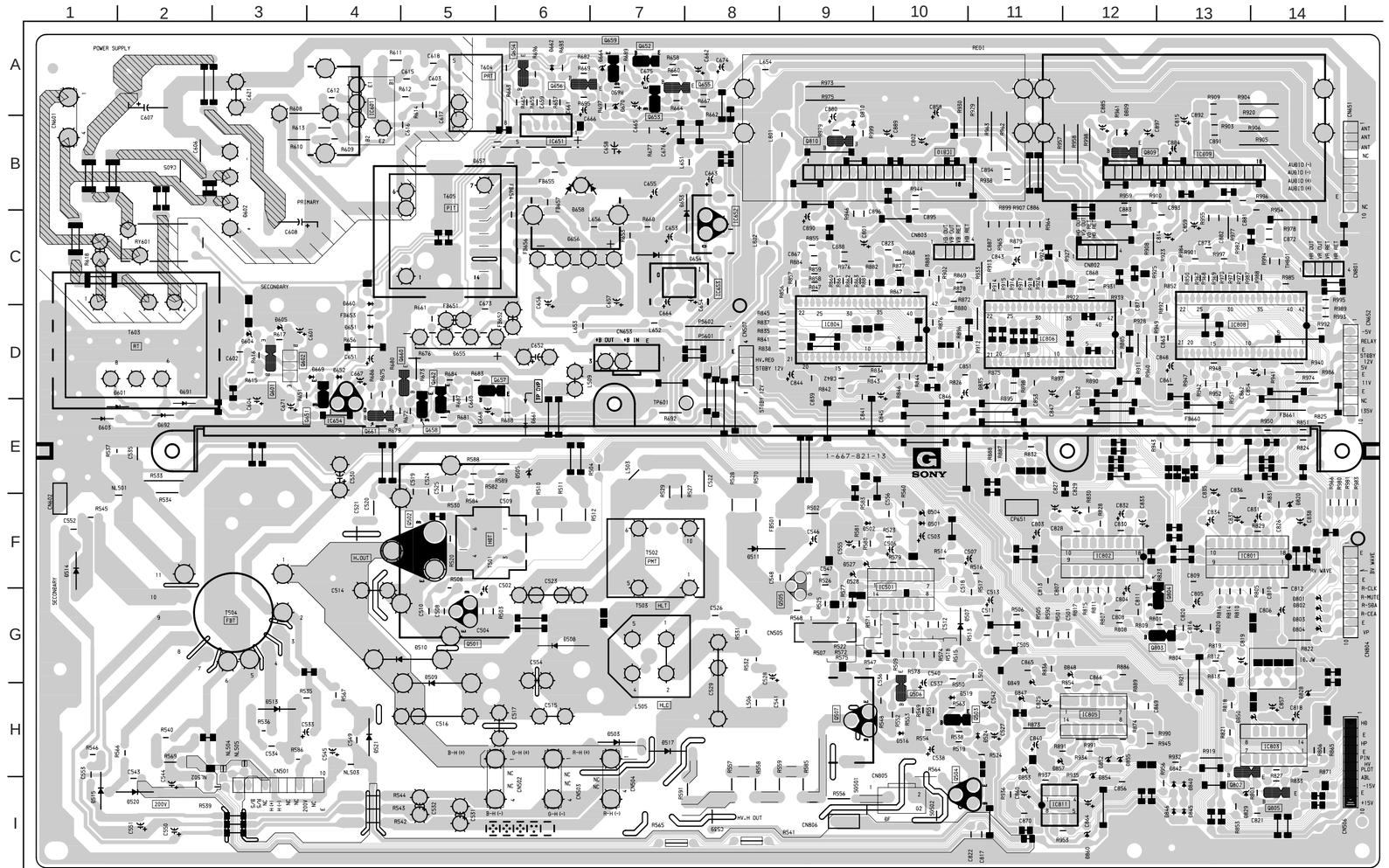
•All voltage are in V.
•Pin number which are not described are not used.
● : The figures in the parenthese are the voltage difference from primary side ground.

• G BOARD ▪ MARK LIST

	KP-48V75/61V75	KP-53V75
R540	0.68	0.47
R542	68 1W : RS	150 1W : RS
R544	68 1W : RS	150 1W : RS
R569	1.8 3W : RS	1.0 3W : RS



– G Board –



G BOARD

DIODE		*
D501	F-10	–
D502	F-9	–
D503	H-7	–
D504	F-10	–
D507	G-10	–
D508	G-6	–
D509	G-5	–
D510	G-4	–
D511	F-8	–
D513	H-3	–
D514	F-1	–
D515	I-1	–
D517	H-7	–
D519	H-10	–
D520	I-2	–
D521	H-4	–
D524	H-11	–
D527	F-9	–
D528	F-9	–
D601	E-1	–
D602	B-3	–
D603	E-1	–
D604	D-3	–
D605	D-3	–
D651	D-4	–
D652	D-4	–
D653	C-8	–
D654	C-7	–
D655	D-5	–
D656	C-6	–
D657	B-6	–
D658	B-6	–
D660	C-4	–
D661	E-6	–
D662	A-6	–
D664	A-7	–
D669	D-4	–
D670	A-7	–
D691	E-2	–
D692	E-2	–
D801	G-14	–
D802	G-14	–
D803	G-14	–
D804	G-14	–
D809	B-12	–
D810	B-9	–
D820	F-14	–
D828	H-14	–
D829	I-13	–
D835	D-11	–
D840	I-13	–
D842	I-13	–
D845	I-13	–
D846	I-13	–
D847	H-11	–
D848	G-12	–
D849	G-11	–
D850	H-14	–
D852	H-12	–
D853	H-11	–
D854	H-12	–
D855	H-12	–
D857	H-11	–
D860	I-12	–

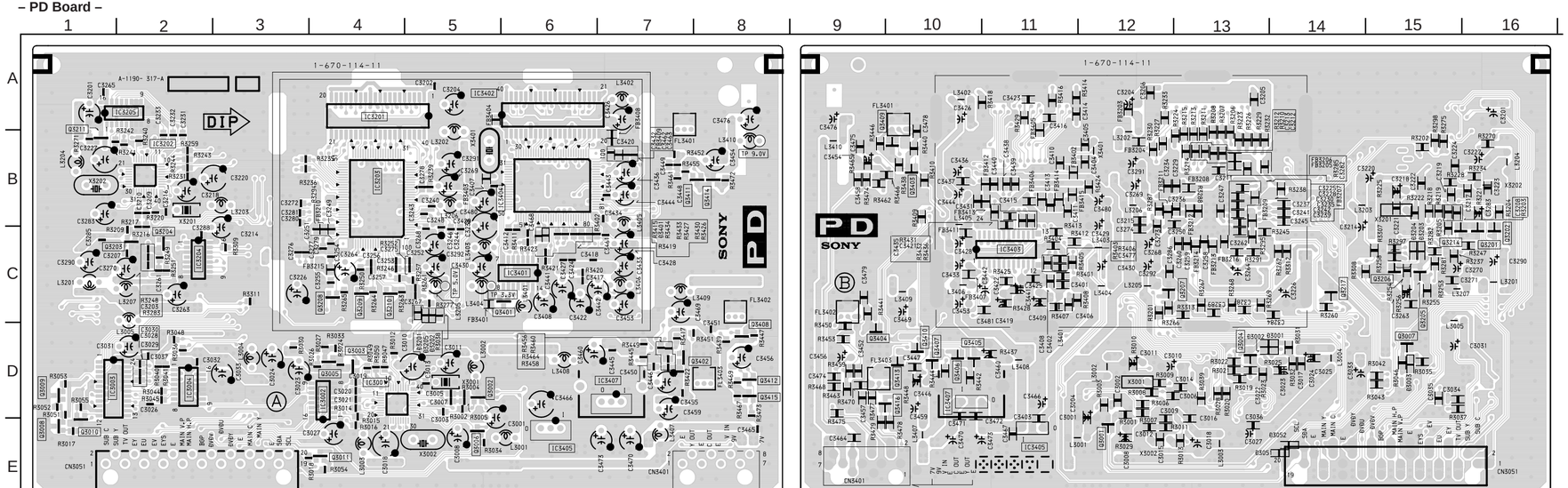
TRANSISTOR		*
Q501	G-5	–
Q502	F-5	–
Q503	H-10	–
Q504	I-11	–
Q505	F-9	–
Q506	H-10	–
Q507	H-9	–
Q601	D-3	–
Q602	D-3	–
Q651	D-4	–
Q652	A-7	–
Q653	A-7	–
Q654	A-6	–
Q655	A-7	–
Q656	A-6	–
Q657	D-5	–
Q658	E-5	–
Q659	A-7	–
Q660	D-5	–
Q661	E-4	–
Q662	D-5	–
Q802	H-13	–
Q803	G-13	–
Q804	G-13	–
Q805	I-14	–
Q809	B-12	–
Q810	B-9	–

IC	
IC501	F-10
IC601	A-4
IC651	B-6
IC652	C-8
IC653	C-7
IC654	E-4
IC801	F-14
IC802	F-12
IC803	H-14
IC804	D-9
IC805	H-12
IC806	D-11
IC808	D-13
IC809	B-13
IC810	B-10
IC811	I-11

PD [DECODER, Y/V/U CONTROL, 3D COMB FILTER, P&P CONTROL]

NOTE:
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

– PD Board –



< Component Side >

< Conductor Side >

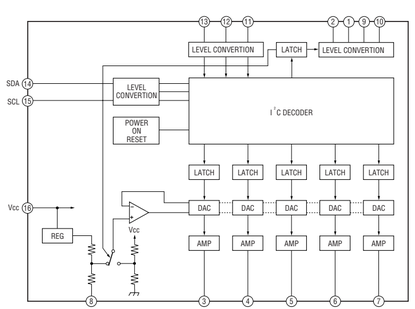
PD BOARD

DIODE	*
D3003	D-15 ③
D3051	E-14 ③
D3052	E-14 ③
D3201	C-5 ③
D3202	C-5 ③
D3205	C-5 ③
D3401	C-6 ③

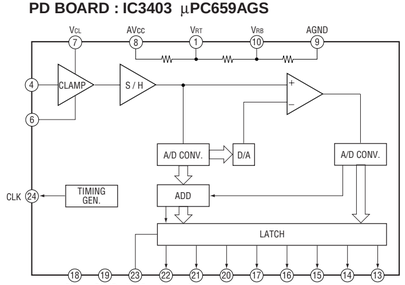
TRANSISTOR	*
Q3001	E-12 ①
Q3002	D-5 ②
Q3003	D-4 ②
Q3004	D-13 ①
Q3005	D-4 ②
Q3006	E-5 ②
Q3007	D-15 ①
Q3008	E-1 ②
Q3009	D-1 ②
Q3010	D-1 ②
Q3201	B-16 ①
Q3202	B-16 ①
Q3203	C-2 ②
Q3204	C-2 ②
Q3205	C-15 ①
Q3206	C-15 ①
Q3207	C-12 ①
Q3208	C-4 ②
Q3209	C-4 ②
Q3210	C-4 ②
Q3211	B-1 ②
Q3214	B-16 ①
Q3217	C-14 ①
Q3401	C-6 ②
Q3402	D-7 ②
Q3403	B-10 ①
Q3404	D-9 ①
Q3405	D-10 ②
Q3406	D-10 ①
Q3407	D-10 ①
Q3408	D-8 ②
Q3409	B-10 ①
Q3410	D-10 ①
Q3411	B-8 ②
Q3412	D-8 ②
Q3413	D-10 ①
Q3414	B-8 ②
Q3415	D-8 ②
Q3416	D-10 ①

IC	
IC3001	D-4
IC3002	D-4
IC3003	D-1
IC3004	D-2
IC3201	A-4
IC3202	B-2
IC3203	B-4
IC3204	C-2
IC3205	A-2
IC3402	A-6
IC3403	C-11
IC3404	B-6
IC3405	E-6,E-11
IC3407	D-7,D-10

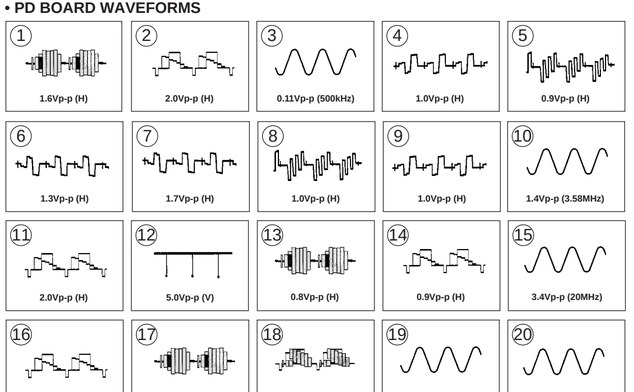
PD BOARD : IC3004 CXA1315M

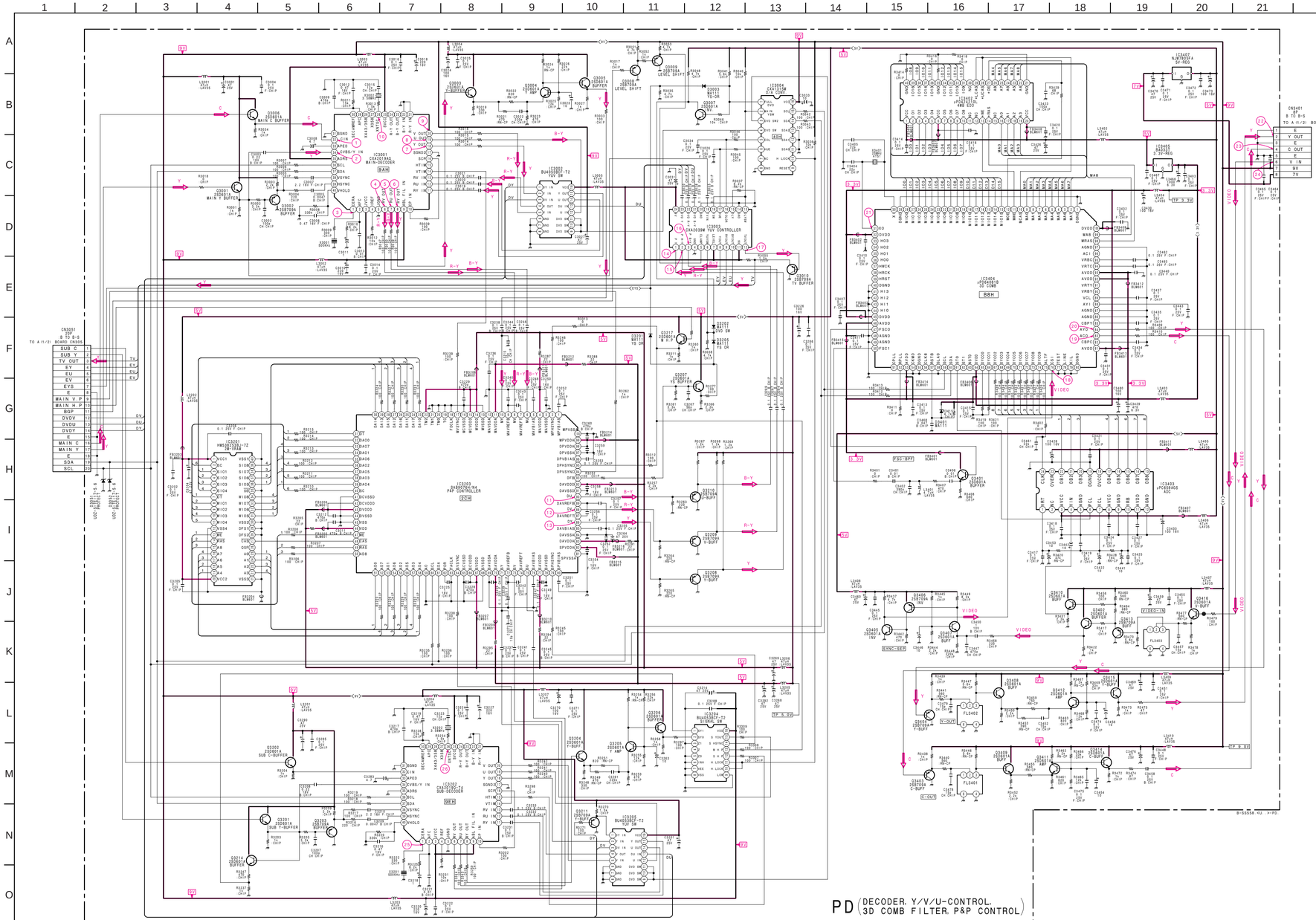


PD BOARD : IC3403 μPC659AGS



• PD BOARD WAVEFORMS





PD BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.
	①	2.3		①	0.2		⑮	GND		㉘	4.5		④	1.4		⑬	1.7
	②	4.1		②	0		⑯	GND		㉙	4.6		⑤	1.2		⑭	1.7
	③	8.9		③	0.4		⑰	8.8		㉚	4.9		⑥	1.3		⑮	0.7
	④	1.8		④	0.4		⑱	2.4		㉛	GND		⑦	5.0		⑯	1.6
	⑤	GND		⑤	4.4		⑲	4.6		㉜	0.2		⑧	1.3		⑰	1.1
	⑥	2.9		⑥	4.5		⑳	GND		㉝	GND		⑨	1.1		⑱	1.3
	⑦	2.9		⑦	GND		㉑	3.6		㉞	4.9		⑩	1.6		⑲	1.3
	⑧	3.3	IC3004	⑧	2.9	IC3202	㉒	4.0		㉟	4.9		⑪	0.7		⑳	1.2
	⑨	8.9		⑨	8.9		㉓	4.4		㊱	GND		⑫	1.0		㉑	1.4
	⑩	0.8		⑩	GND		㉔	GND		㊲	GND		⑬	0.6		㉒	1.9
	⑪	4.4		⑪	GND		㉕	4.7		㊳	4.3		⑭	1.4		㉓	GND
	⑫	4.3		⑫	GND		㉖	4.5		㊴	0.4		⑮	1.4		㉔	2.5
	⑬	4.3		⑬	4.6		㉗	3.4		㊵	0.4		⑯	1.5		㉕	2.3
	⑭	0.2		⑭	4.7		㉘	2.5		㊶	1.1		⑰	1.5		㉖	1.3
	⑮	0.8		⑮	8.9		㉙	0.7		㊷	1.8		⑱	5.0		㉗	GND
	⑯	GND		⑯	4.9		㉚	1.6		㊸	1.1		⑲	0		㉘	GND
IC3001	⑰	3.4		⑰	0		㉛	0.6		㊹	2.1	IC3402	⑳	1.7		㉙	GND
	⑱	3.0		⑱	0.2		㉜	GND		㊺	4.7		㉑	1.5		㉚	GND
	⑲	3.0		⑲	0.2		㉝	4.7		㊻	GND		㉒	1.5		㉛	GND
	⑳	GND		⑳	0.2		㉞	2.2	IC3203	㊼	0.6		㉓	1.5		㉜	3.3
	㉑	GND		㉑	0.2		㉟	1.1		㊽	1.6		㉔	1.6		㉝	3.3
	㉒	8.9		㉒	0.9		㊱	1.8		㊾	GND		㉕	2.4		㉞	1.9
	㉓	2.4		㉓	11.2		㊲	1.1		㊿	4.9		㉖	1.0		㉟	GND
	㉔	5.5		㉔	0.8		㊳	0.4		(51)	4.4		㉗	1.0		㊱	GND
	㉕	GND		㉕	0.3		㊴	0.8		(52)	GND		㉘	1.3		㊲	0
	㉖	3.6		㉖	0.4		㊵	4.3		(53)	0.9		㉙	1.1		㊳	0
	㉗	4.0		㉗	GND		㊶	4.9		(54)	0.4		㉚	1.1		㊴	3.3
	㉘	4.6		㉘	3.7		㊷	4.9		(55)	2.0		㉛	1.5		㊵	GND
	㉙	8.8		㉙	2.0		㊸	0.3		(56)	1.1		㉜	0		㊶	GND
	㉚	4.7		㉚	0.7		㊹	4.9		(57)	0.4		㉝	1.3		㊷	GND
	㉛	4.6		㉛	0.8		㊺	GND		(58)	1.0		㉞	1.3		㊸	GND
	㉜	3.9		㉜	0.8		㊻	0.2		(59)	GND		㉟	1.7		㊹	4.7
	㉝	3.2		㉝	0.7		㊼	GND		(60)	4.9		㊱	1.7		㊺	2.9
	㉞	2.7		㉞	0.7		㊽	GND		(61)	0	IC3404	㊲	0.2		㊻	GND
	①	0	IC3201	㉟	4.9		㊾	GND		(62)	0.1		㊳	3.3		㊼	3.3
	②	0		㊱	GND	IC3203	㊿	GND		(63)	0.6		㊴	5.0		㊽	0.8
	③	0.8		㊲	4.9		(51)	4.9		(64)	1.6		㊵	2.7		㊾	0.8
	④	3.0		㊳	0.7		(52)	0.2		(65)	GND		㊶	GND		㊿	1.9
	⑤	3.0		㊴	0.7		(53)	0.2		(66)	4.9		㊷	0.2		(51)	2.1
	⑥	GND		㊵	0.7		(54)	0.2		(67)	4.9		㊸	0.2		(52)	1.8
	⑦	GND		㊶	2.6		(55)	0.2		(68)	GND		㊹	5.0		(53)	1.6
IC3002	⑧	GND		㊷	GND		(56)	0.3		①	1.3		㊺	GND		(54)	1.7
	⑨	0.4		㊸	GND		(57)	0.2		②	3.0		㊻	2.4		(55)	1.2
	⑩	0.4		㊹	GND		(58)	0.2		③	GND		㊼	3.0		(56)	3.0
	⑪	0.4		㊺	0.4		(59)	0.3		④	GND		㊽	GND		(57)	1.5
	⑫	3.0		㊻	0.4		(60)	4.9	IC3204	⑤	GND	IC3403	㊾	1.9		(58)	1.5
	⑬	3.9		㊼	0.4		(61)	1.2		⑥	GND		㊿	2.1		(59)	4.5
	⑭	3.0		㊽	0.4		(62)	0.4		⑦	GND		(51)	1.8		(60)	GND
	⑮	3.5		㊾	GND		(63)	0.8		⑧	GND		(52)	1.6		(61)	GND
	⑯	8.9		㊿	0.3		(64)	0.4		⑨	8.9		(53)	1.7		(62)	GND
	⑰	5.8		(51)	0.3		(65)	0.3		⑩	8.9		(54)	5.0		(63)	GND
	⑱	5.8		(52)	0.3		(66)	0.4		⑪	0.8		(55)	3.3		(64)	3.3
	⑲	5.8		(53)	0.3		(67)	0.4		⑫	0.6		(56)	1.2		(65)	1.7
	⑳	GND		(54)	0.4		(68)	0.6		⑬	1.3		(57)	3.0		(66)	1.8
	㉑	1.7		(55)	2.3		(69)	0		⑭	1.5		(58)	1.5		(67)	1.7
	㉒	2.3		(56)	4.1		(70)	8.9		⑮	1.5		(59)	17		(68)	GND
	㉓	8.9		(57)	8.9		(71)	4.9		①	3.7		(60)	GND		(69)	GND
	㉔	3.7		(58)	1.8		(72)	4.8		②	3.0		(61)	1.5		(70)	GND
	㉕	3.9		(59)	GND		(73)	GND		③	3.9		(62)	1.6		(71)	1.8
	㉖	3.7		(60)	3.0		(74)	GND		④	3.0		(63)	1.5		(72)	1.8
	㉗	8.9		(61)	2.9		(75)	4.9		⑤	3.0		(64)	1.5		(73)	3.3
	㉘	3.4		(62)	3.3		(76)	3.7		⑥	GND		(65)	1.5		(74)	3.3
IC3003	㉙	0.1		(63)	8.9		(77)	2.6		⑦	GND		(66)	1.5		(75)	1.9
	㉚	GND	IC3202	(64)	0.8		(78)	2.0		⑧	GND		(67)	1.5		(76)	1.9
	㉛	2.4		(65)	4.4		(79)	GND	IC3205	⑨	0.4		(68)	1.4		(77)	GND
	㉜	4.4		(66)	4.3		(80)	0.7		⑩	0.4	IC3404	(69)	1.0		(78)	0.6
	㉝	4.5		(67)	4.4		(81)	0.8		⑪	0.4		(70)	1.0		(79)	1.7
	㉞	0.1		(68)	0.2		(82)	0.7		⑫	1.8		(71)	1.3		(80)	3.3
	㉟	6.2		(69)	0.8		(83)	0.8		⑬	3.9		(72)	1.3		(81)	5.1
	㊱	GND		(70)	0.7		(84)	0.7		⑭	2.9	IC3405	(73)	1.1		(82)	GND
	㊲	5.8		(71)	GND		(85)	0.7		⑮	3.0		(74)	1.1		(83)	3.3
	㊳	5.8		(72)	3.4		(86)	0.7		①	8.9		(75)	1.5		(84)	7.5
	㊴	5.8		(73)	3.0	IC3402	(87)	5.1		②	1.3	IC3407	(76)	GND		(85)	5.1
	㊵	8.9		(74)	2.9		(88)	1.9		③	1.3		(77)	1.5		(86)	5.1

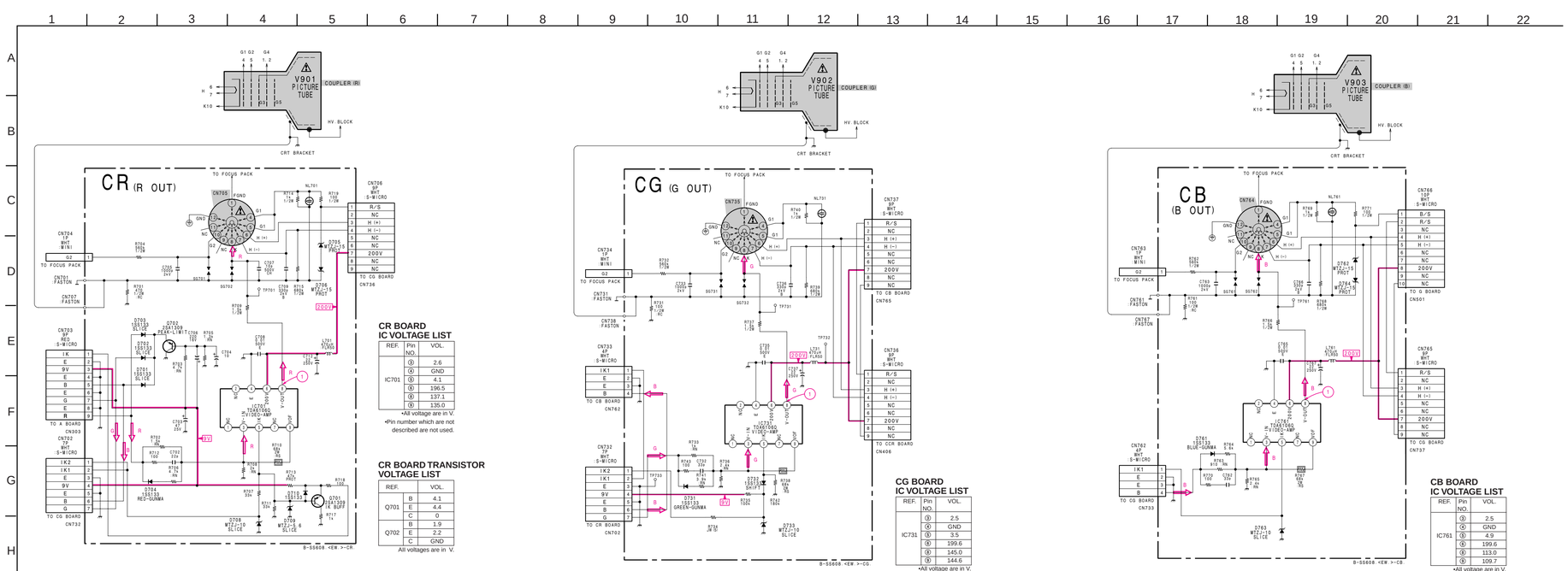
•All voltage are in V.

•Pin number which are not described are not used.

PD BOARD TRANSISTOR VOLTAGE LIST

REF.		VOL.	REF.		VOL.	REF.		VOL.	REF.		VOL.
	B	3.3		B	3.2		B	4.2		B	3.0
Q3001	E	2.6	Q3201	E	2.5	Q3211	E	4.9	Q3408	E	2.3
	C	8.9		C	8.9		C	2.1		C	4.2
	B	3.4		B	4.2		B	2.5		B	3.1
Q3002	E	4.0	Q3202	E	3.6	Q3214	E	1.9	Q3409	E	2.4
	C	GND		C	8.9		C	8.9		C	8.9
	B	3.3		B	2.5		B	1.1		B	3.4
Q3003	E	2.7	Q3203	E	3.2	Q3217	E	0.5	Q3410	E	2.7
	C	8.9		C	GND		C	5.1		C	8.9
	B	3.1		B	2.9		B	1.9		B	2.4
Q3004	E	2.4	Q3204	E	2.3	Q3401	E	1.3	Q3411	E	1.8
	C	4.1		C	8.9		C	3.3		C	6.7
	B	4.1		B	3.1		B	4.0		B	2.3
Q3005	E	3.4	Q3205	E	2.4	Q3402	E	3.4	Q3412	E	1.8
	C	8.9		C	3.6		C	8.9		C	6.0
	B	4.2		B	3.6		B	1.8		B	4.3
Q3006	E	3.6	Q3206	E	3.0	Q3403	E	2.4	Q3413	E	3.7
	C	8.9		C	8.9		C	GND		C	GND
	B	0.2		B	0		B	1.7		B	6.7
Q3007	E	GND	Q3207	E	0	Q3404	E	2.4	Q3414	E	6.0
	C	2.9		C	5.1		C	GND		C	8.9
	B	0.4		B	0.4		B	0.1		B	6.0
Q3008	E	1.0	Q3208	E	1.0	Q3405	E	GND	Q3415	E	5.3
	C	GND		C	GND		C	4.5		C	8.9
	B	1.1		B	1.1		B	5.0		B	4.3
Q3009	E	1.7	Q3209	E	1.8	Q3406	E	5.1	Q3416	E	3.7
	C	GND		C	GND		C	0.1		C	8.9
	B	3.4		B	1.1		B	3.5			
Q3010	E	4.0	Q3210	E	1.8	Q3407	E	3.8			
	C	GND		C	GND		C	5.0			

All voltages are in V.



CR BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.
IC701	①	2.6
	②	GND
	③	4.1
	④	196.5
	⑧	137.1
	⑨	135.0

•All voltage are in V.
•Pin number which are not described are not used.

CR BOARD TRANSISTOR VOLTAGE LIST

REF.		VOL.
Q701	B	4.1
	E	4.4
	C	0
Q702	B	1.9
	E	2.2
	C	GND

All voltages are in V.

• CR BOARD WAVEFORM

① 140Vp-p (H)

CG BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.
IC731	①	2.5
	②	GND
	③	3.5
	④	199.6
	⑧	145.0
	⑨	144.6

•All voltage are in V.
•Pin number which are not described are not used.

• CG BOARD WAVEFORM

① 160Vp-p (H)

CB BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.
IC761	①	2.5
	④	GND
	⑤	4.9
	⑥	199.6
	⑧	113.0
	⑨	109.7

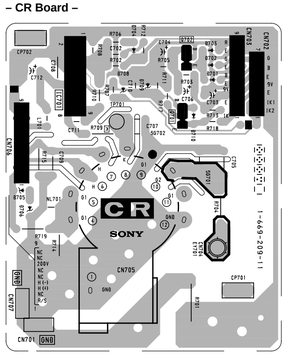
•All voltage are in V.
•Pin number which are not described are not used.

• CB BOARD WAVEFORM

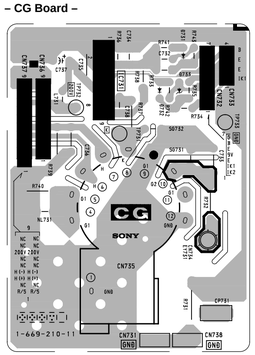
① 170Vp-p (H)

CR [R OUT] **CG** [G OUT] **CB** [B OUT]

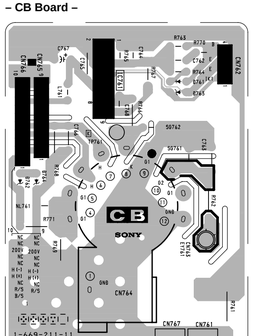
– CR Board –

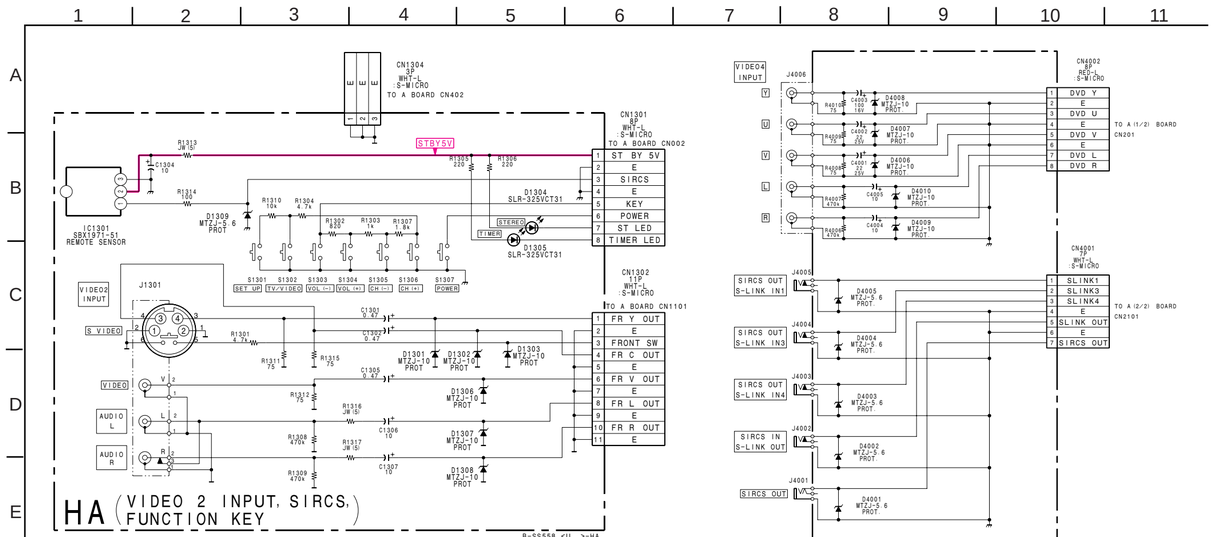


– CG Board –



– CB Board –





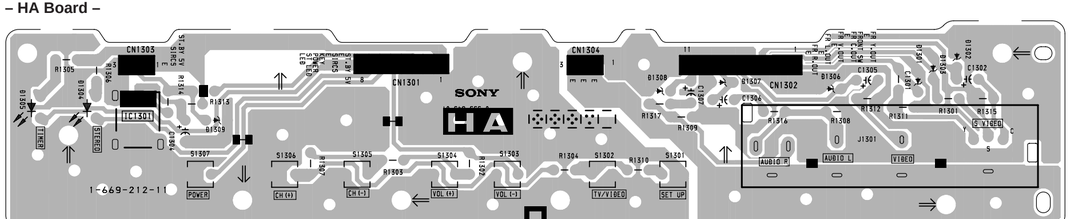
HA BOARD
IC VOLTAGE LIST

REF.	Pin NO.	VOL.
IC1301	①	5.0
	②	5.0
	③	GND

•All voltage are in V.

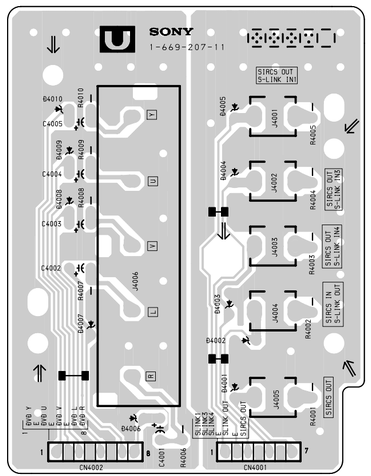
HA [VIDEO 2 INPUT, SIRCS FUNCTION KEY]

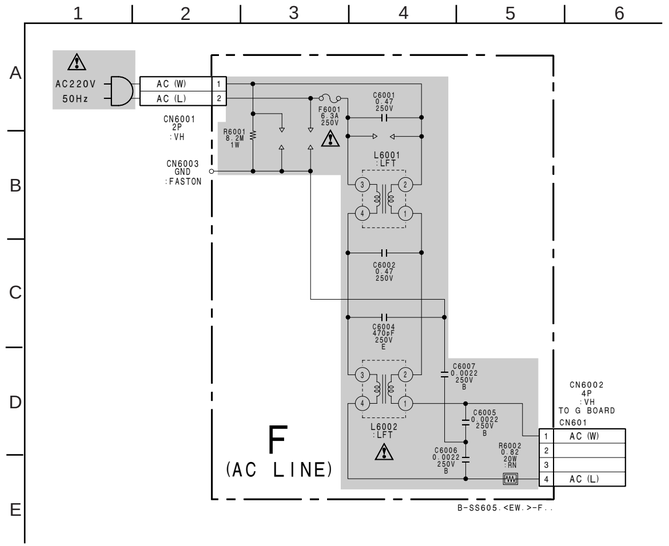
– HA Board –



U [VIDEO 4 INPUT, SIRCS INPUT/OUTPUT]

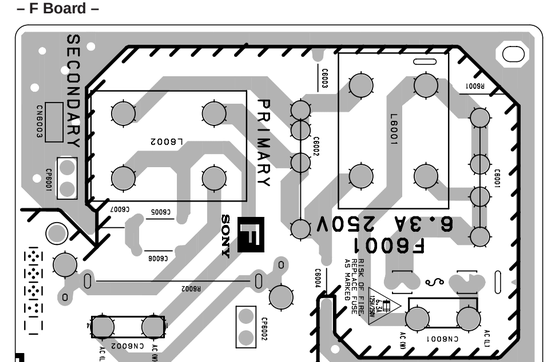
– U Board –





F [AC LINE]

– F Board –



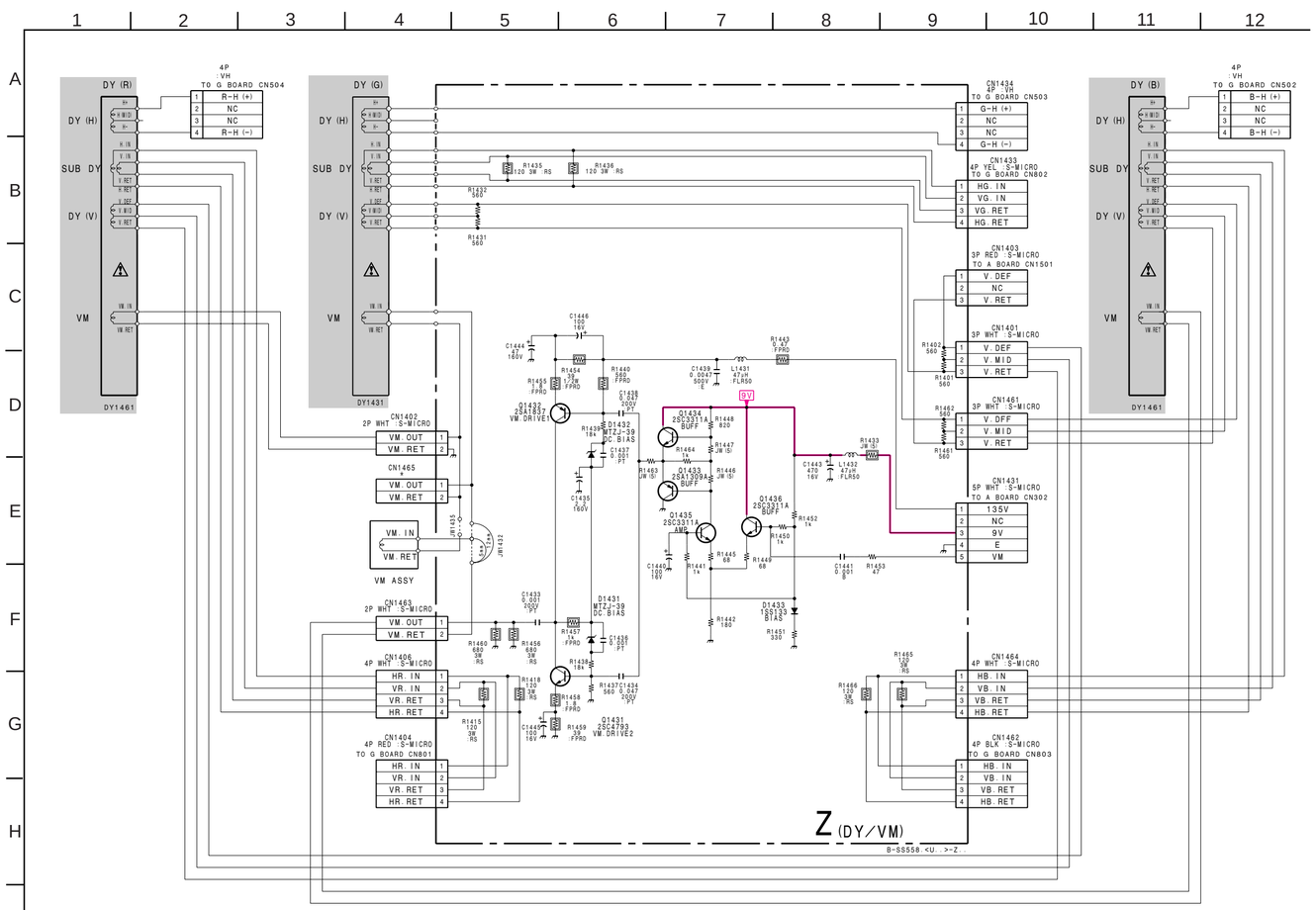
Schematic diagram ← HA U F board

Schematic diagram Z board →

Z BOARD TRANSISTOR VOLTAGE LIST

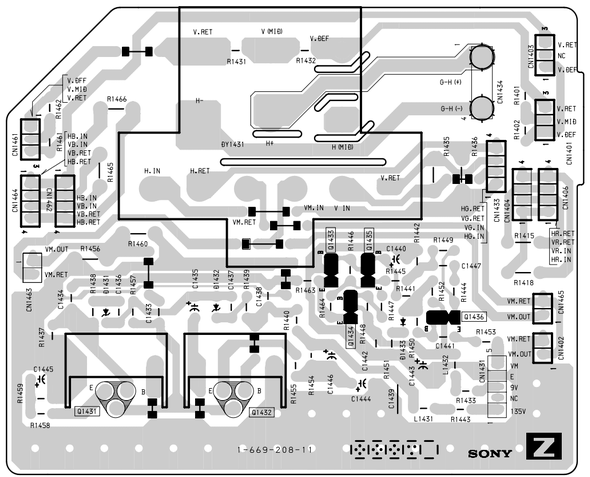
REF.		VOL.
Q1431	B	0.9
	E	0.5
	C	67.2
Q1432	B	134.4
	E	138.4
	C	67.2
Q1433	B	5.7
	E	5.8
	C	GND
Q1434	B	5.7
	E	5.8
	C	9.0
Q1435	B	2.7
	E	2.1
	C	5.7
Q1436	B	2.7
	E	2.1
	C	9.0

All voltages are in V.



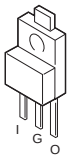
Z [VM, DY]

– Z Board –



6-5. SEMICONDUCTORS

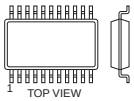
BA033T



BH3856FS-E2

32pin

BU4053BCF-T2
CXA1315M
NJM2145M-TE2

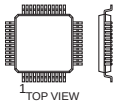


16pin

CA0007AM
CA0007AD
NJM2058D
UPC339C

14pin

CXA2019Q

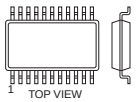


40pin

CXA2025AS

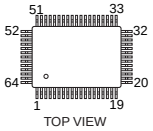
48pin

CXA2039M-T6
µPC659AGS-E2

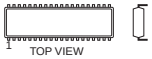


24pin

CXA2079Q

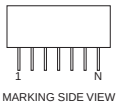


CXP85112B-613S
CXP85856A-010S



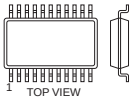
64pin

DM-58



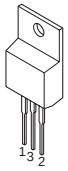
5pin

HM538253BJ-7Z
µPD424210LE-60-A-E2



40pin

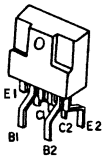
MC7905CT



PM0011AS

42pin

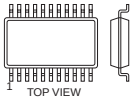
MX0841AB-F



M5218AP
X24C04S8

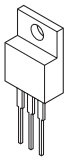
8pin

NJM2178M-T2



30pin

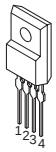
NJM78M05FA
TA7805S
TA7812S



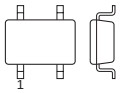
PA0053B

18pin

PQ09RD11

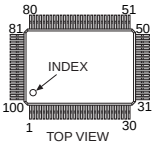


PST9143NL

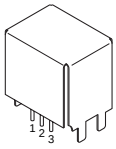


5pin

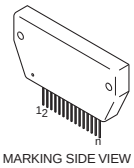
SAB9076H/N4
µPD6408/BGF-3BA



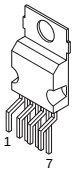
SBX1780-51(10)



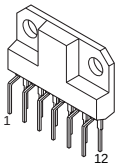
STK392-150



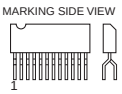
STV9379



TA8200AH

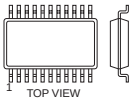


TDA6106Q



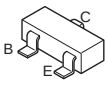
9pin

UPC4558G2

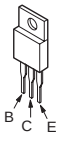


8pin

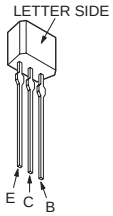
DTA144EKA-T146
DTC143TKA-T146
DTC144EKA
2SA1162-G
2SD601A-Q



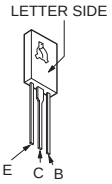
IRF614
2SA1837
2SC4793



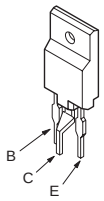
2SA1175-HFE
2SC2785-HFE



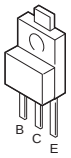
2SC2688-LK



2SC4632LS-CB7

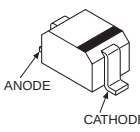


2SC5022-02

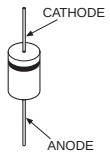


2SD2348 (LBSONY)

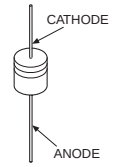
MA111
UDZ-S-TE-17-5.6
UDZ-TE-17-36B



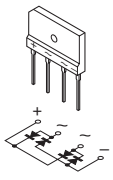
D1NL20
EL1Z
GP08D
RGP02-20EL-6394



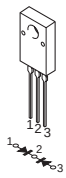
D1NS4
HZS9.1NB2
MTZJ-T-77-15
MTZJ-T-77-36B
MTZJ-30A
MTZJ-33B
MTZJ-7.5B
RD10ESB2
RD11ES-B2
RD24ES-B1
RD3.6ES-B1
RD39ES-B2
RD5.1ESB2
RD5.6ES-B1
RD5.6ESB2
11ES2



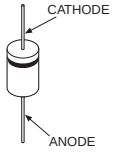
D10SBS4F
D4SBS4-F
LN4SB60
RBA-402LLF-A



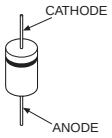
D10SC4M



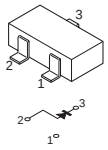
D2S4MF



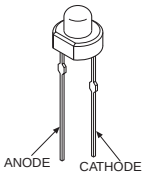
ERC06-15S
ERD29-08J



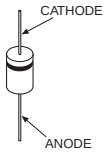
RD43M-B



SLR-325VCT31



1SS133T-77



SECTION 7
EXPLODED VIEWS

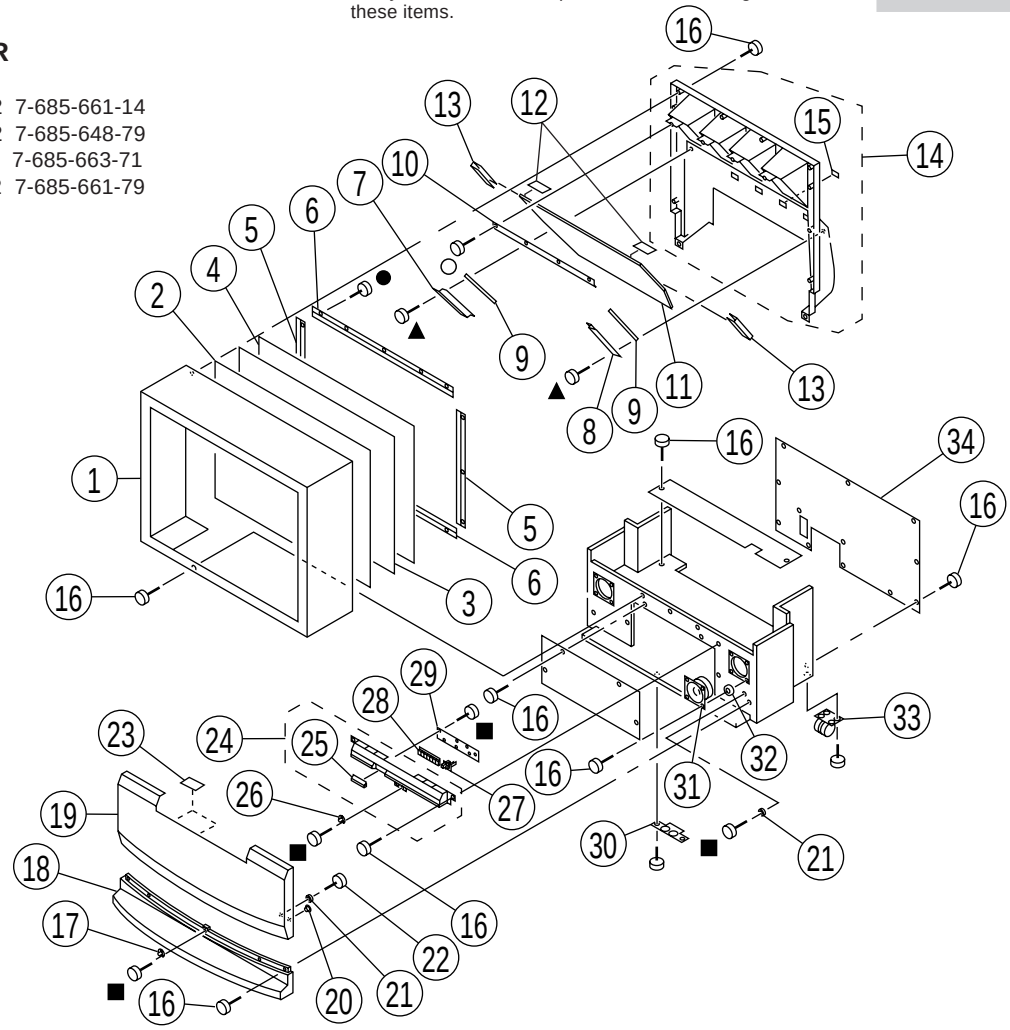
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. COVER

● : +BVTP 4X12 7-685-661-14
■ : +BVTP 3X12 7-685-648-79
▲ : +BVTP 4X16 7-685-663-71
○ : +BVTP 4X12 7-685-661-79

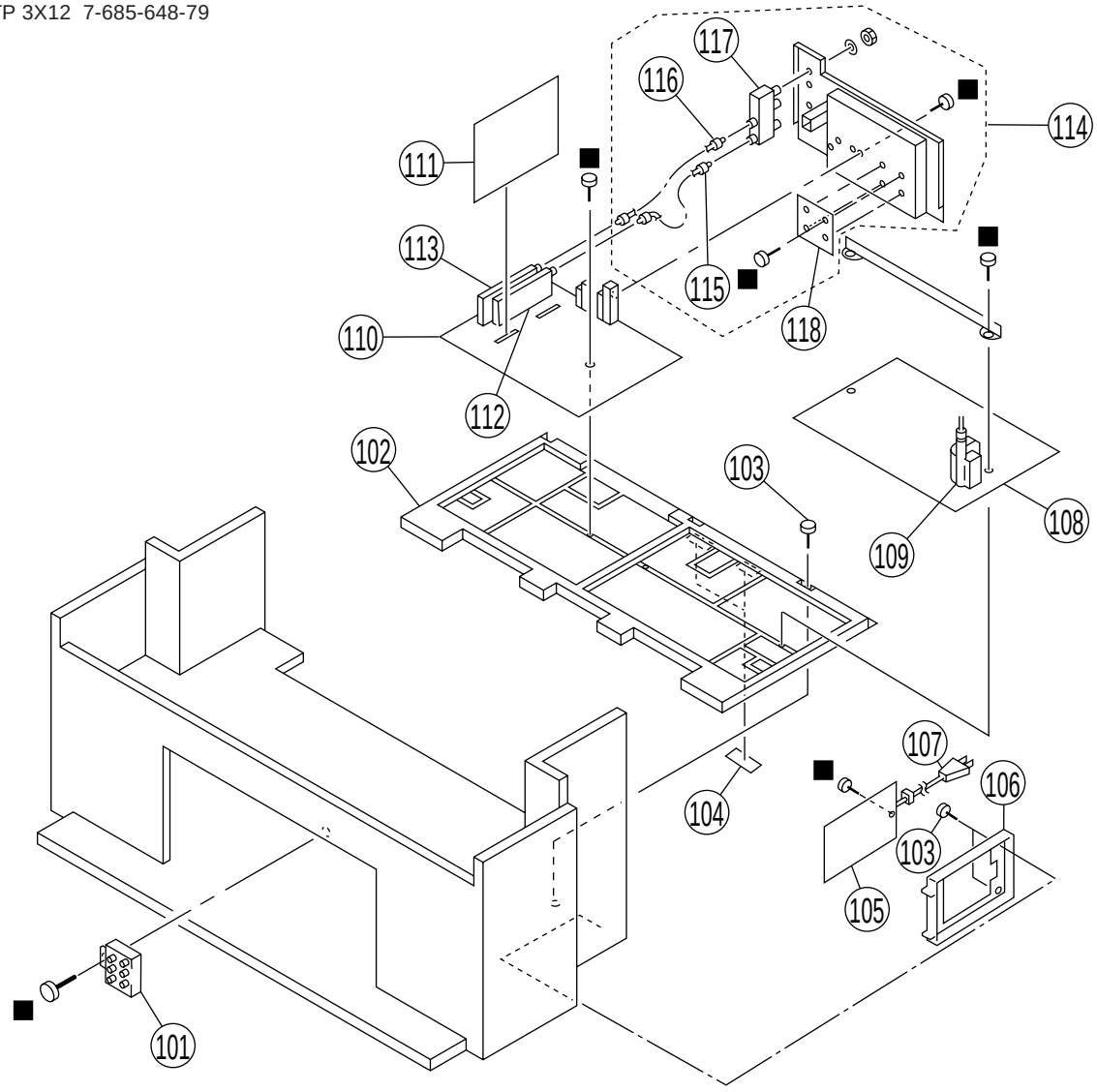


REF. NO.		PART NO.	DESCRIPTION	REMARK
1		X-4035-743-1	BEZNET ASSY (53V)	
2		4-058-894-11	SCREEN (53), CONTRAST	
3		4-064-343-01	PLATE (L), DIFFUSION	
4		4-059-221-11	PLATE (F), DIFFUSION	
5	*	4-058-892-11	HOLDER (S), SCREEN	
6	*	4-058-893-11	HOLDER (L), SCREEN	
7	*	4-051-790-02	HOLDER, MIRSD (L)	
8	*	4-051-789-02	HOLDER, MIRSD (R)	
9	*	4-049-098-01	CUSHION	
10	*	4-037-351-01	HOLDER, MIRROR	
11		4-058-889-01	MIRROR (53), REFLECTION	
12		7-600-003-52	BLACK ACETATE (2142) 46X50M	
13		4-033-775-41	PROTECTOR, MIRROR	
14	*	X-4032-620-1	COVER ASSY, MIRROR	15
15		4-048-150-01	CAP, HOLE	
16		4-378-522-31	SCREW (4X20), TAPPING	
17		4-843-806-00	STRIKE	
18		4-057-608-01	SKIRT, FRONT	
19		X-4034-498-1	GRILLE ASSY, SPEAKER	
20		4-838-438-00	LATCH	
21		4-058-745-02	VELCRO	
22		4-061-050-11	SCREW, PAN HEAD TAPPING (3X6)	
23		3-551-305-21	PCUSHION, PANEL	
24		X-4034-499-1	PANEL ASSY, CONTROL	26
25		4-057-605-01	DOOR, CONTROL PANEL	
26		4-843-806-00	STRIKE	
27		4-057-604-01	GUIDE, LED/IR	
28		4-057-603-11	BUTTON, MULTI	
29	*	A-1372-476-A	HA BOARD, COMPLETE (VAR)	
30		4-048-175-01	FOOT, PLASTIC	
31		1-505-426-11	SPEAKER (10.6CM)	
32		4-060-066-01	SPACER, SPEAKER	
33		4-040-755-01	CASTER (DIA.30)	
34	*	4-057-844-01	BOARD (53), REAR	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-2. CHASSIS

■ : +BVTP 3X12 7-685-648-79

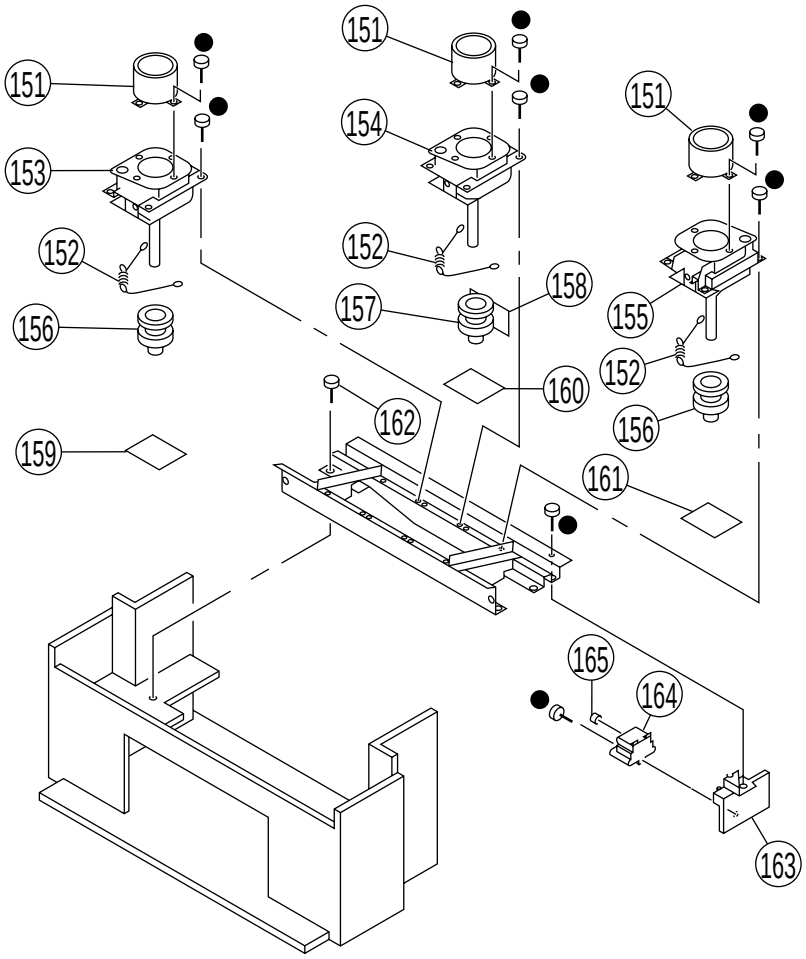


REF. NO.		PART NO.	DESCRIPTION	REMARK
101	⚠	1-223-925-11	RESISTOR ASSY (HIGH-VOLTAGE)	
102	*	4-057-594-01	BRACKET, MAIN	
103		4-052-894-01	SCREW (4X20), HEAD TAPPING	
104		3-551-305-21	CUSHION, PANEL	
105	*	A-1241-326-A	F BOARD, COMPLETE	
106	*	4-060-974-01	BRACKET, F	
107	⚠	1-769-796-11	CORD, POWER (WITH NOISE FILTER)	
108	*	A-1316-419-A	G BOARD, COMPLETE	
109	⚠	1-453-238-11	TRANSFORMER ASSY, FLYBACK (NX/4007//X4A4)	
110	*	A-1298-550-A	A BOARD, COMPLETESEC-1	
111	*	A-1190-317-A	PD BOARD, COMPLETE	
112		8-598-339-00	TUNER, FSS BTF-LA402	
113		8-598-340-00	TUNER, FSS BTF-WA404	
114		A-1435-471-A	TERMINAL ASSY, ANTENNA	115-118
115	*	1-557-056-31	CABLE, P-P	
116		1-556-945-21	CABLE, P-P	
117		8-598-414-00	ANTENNA SWITCH AS-2F	
118	*	A-1373-667-A	U BOARD, COMPLETE	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-3. PICTURE TUBE

● : +BVTP 4X12 7-685-661-14



REF. NO.		PART NO.	DESCRIPTION	REMARK
151		4-056-258-01	LENS (DELTA 78)	
152		4-057-007-01	SPRING, TENSION	
153	⚠	A-1501-278-A	COUPLER (R) ASSY, PICTURE TUBE	
154	⚠	A-1501-279-A	COUPLER (G) ASSY, PICTURE TUBE	
155	⚠	A-1501-277-A	COUPLER (B) ASSY, PICTURE TUBE	
156	⚠	1-451-454-31	DEFLECTION YOKE (R) (B)	
157	⚠	1-451-454-11	DEFLECTION YOKE (G)	
158	*	A-1390-826-A	Z BOARD, COMPLETE (COM)	
159	*	A-1331-804-A	CR BOARD, COMPLETE (VAR)	
160	*	A-1331-805-A	CG BOARD, COMPLETE (VAR)	
161	*	A-1331-806-A	CB BOARD, COMPLETE (VAR)	
162		4-052-894-01	SCREW (4X20), HEAD TAPPING	
163	*	4-057-596-01	BRACKET, HV	
164	⚠	8-598-955-30	BLOCK ASSY, HIGH-VOLTAGE	
165		4-373-137-01	CAP (Z), RUBBER	

F PD

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1241-326-A	F BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C6001 ⚠	1-104-708-11	FILM	0.47μF	20%	250V
C6002 ⚠	1-104-708-11	FILM	0.47μF	20%	250V
C6004 ⚠	1-113-900-11	CERAMIC	470PF	10%	250V
C6005 ⚠	1-113-907-51	CERAMIC	0.0022μF	20%	250V
C6006 ⚠	1-113-907-51	CERAMIC	0.0022μF	20%	250V
C6007 ⚠	1-113-907-51	CERAMIC	0.0022μF	20%	250V
		<CONNECTOR>			
CN6001*	1-580-843-11	PIN, CONNECTOR (POWER)			
CN6002*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN6003	1-695-915-11	TAB (CONTACT)			
		<FUSE>			
F6001 ⚠	1-532-506-51	FUSE 6.3A/250V			
	1-533-223-11	CLIP, FUSE ; F6001			
		<COIL>			
L6001 ⚠	1-424-248-11	TRANSFORMER, LINE FILTER			
L6002 ⚠	1-424-248-11	TRANSFORMER, LINE FILTER			
		<RESISTOR>			
R6001 ⚠	1-218-265-11	METAL	8.2M	5%	1W
R6002 ⚠	1-202-981-11	CEMENTED	0.82	5%	20W
**********					
*	A-1190-317-A	PD BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C3001	1-104-664-11	ELECT	47μF	20%	25V
C3002	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3003	1-164-489-11	CERAMIC CHIP	0.22μF	10%	16V
C3004	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3005	1-163-017-00	CERAMIC CHIP	0.0047μF	10%	50V
C3006	1-164-005-11	CERAMIC CHIP	0.47μF		16V
C3007	1-164-505-11	CERAMIC CHIP	2.2μF		16V
C3008	1-126-963-11	ELECT	4.7μF	20%	50V
C3009	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3010	1-126-934-11	ELECT	220μF	20%	16V
C3011	1-126-960-11	ELECT	1μF	20%	50V
C3012	1-164-005-11	CERAMIC CHIP	0.47μF		16V
C3013	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C3014	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3015	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C3016	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3018	1-126-934-11	ELECT	220μF	20%	16V
C3019	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3020	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3021	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3022	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C3023	1-126-964-11	ELECT	10μF	20%	50V
C3024	1-126-933-11	ELECT	100μF	20%	16V
C3025	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3026	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3027	1-104-664-11	ELECT	47μF	20%	25V
C3028	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3029	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3030	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3031	1-104-664-11	ELECT	47μF	20%	25V
C3033	1-126-964-11	ELECT	10μF	20%	50V
C3034	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3035	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C3201	1-104-664-11	ELECT	47μF	20%	25V
C3202	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3204	1-104-664-11	ELECT	47μF	20%	25V
C3205	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3206	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C3207	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3208	1-164-489-11	CERAMIC CHIP	0.22μF	10%	16V
C3209	1-163-017-00	CERAMIC CHIP	0.0047μF	10%	50V
C3210	1-164-505-11	CERAMIC CHIP	2.2μF		16V
C3211	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3212	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3214	1-104-664-11	ELECT	47μF	20%	25V

PD

REF. NO.	PART NO.	DESCRIPTION			REMARK
C3215	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3216	1-164-005-11	CERAMIC CHIP	0.47µF		16V
C3217	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3218	1-126-960-11	ELECT	1µF	20%	50V
C3219	1-164-005-11	CERAMIC CHIP	0.47µF		16V
C3220	1-126-934-11	ELECT	220µF	20%	16V
C3221	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3222	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3223	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C3224	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3225	1-164-346-11	CERAMIC CHIP	1µF		16V
C3226	1-126-933-11	ELECT	100µF	20%	16V
C3227	1-126-934-11	ELECT	220µF	20%	16V
C3228	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3229	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3231	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3232	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3233	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3235	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3236	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3237	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3238	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3239	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3240	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3241	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3242	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3243	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3244	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3245	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3246	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3247	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3248	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3249	1-164-346-11	CERAMIC CHIP	1µF		16V
C3250	1-164-346-11	CERAMIC CHIP	1µF		16V
C3251	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3252	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3253	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3254	1-164-346-11	CERAMIC CHIP	1µF		16V
C3255	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3256	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3257	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3258	1-164-346-11	CERAMIC CHIP	1µF		16V
C3259	1-164-346-11	CERAMIC CHIP	1µF		16V
C3260	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3261	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C3262	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3263	1-126-964-11	ELECT	10µF	20%	50V
C3264	1-104-664-11	ELECT	47µF	20%	25V
C3267	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C3268	1-104-664-11	ELECT	47µF	20%	25V
C3269	1-104-664-11	ELECT	47µF	20%	25V
C3270	1-126-933-11	ELECT	100µF	20%	16V
C3271	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3272	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3283	1-126-963-11	ELECT	4.7µF	20%	50V
C3284	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C3285	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3286	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3287	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3288	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3289	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3290	1-104-664-11	ELECT	47µF	20%	25V
C3292	1-104-664-11	ELECT	47µF	20%	25V
C3401	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3402	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C3403	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3404	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C3405	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C3406	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3407	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3409	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3410	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3411	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3412	1-216-295-91	CONDUCTOR, CHIP		0	
C3413	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3414	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3415	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3416	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3417	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3418	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3419	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3420	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3421	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3422	1-126-964-11	ELECT	10µF	20%	50V
C3423	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3424	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3425	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3426	1-104-664-11	ELECT	47µF	20%	25V
C3427	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3428	1-126-933-11	ELECT	100µF	20%	16V
C3429	1-126-935-11	ELECT	470µF	20%	6.3V
C3430	1-126-933-11	ELECT	100µF	20%	16V
C3431	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3432	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3433	1-126-933-11	ELECT	100µF	20%	16V
C3434	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3435	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3437	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3440	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3441	1-126-964-11	ELECT	10µF	20%	50V
C3442	1-126-964-11	ELECT	10µF	20%	50V
C3443	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3445	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3446	1-126-964-11	ELECT	10µF	20%	50V
C3447	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3448	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3450	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C3451	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3452	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3453	1-126-964-11	ELECT	10µF	20%	50V
C3454	1-126-964-11	ELECT	10µF	20%	50V
C3455	1-163-038-91	CERAMIC CHIP	0.1µF		25V

PD

REF. NO.	PART NO.	DESCRIPTION			REMARK
C3456	1-126-964-11	ELECT	10µF	20%	50V
C3457	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3458	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3459	1-104-664-11	ELECT	47µF	20%	25V
C3460	1-104-664-11	ELECT	47µF	20%	25V
C3461	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C3462	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3463	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3464	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3465	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3466	1-126-916-11	ELECT	1000µF	20%	6.3V
C3467	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3468	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C3469	1-104-664-11	ELECT	47µF	20%	25V
C3470	1-104-664-11	ELECT	47µF	20%	25V
C3471	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3472	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3473	1-126-933-11	ELECT	100µF	20%	16V
C3474	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3475	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3476	1-104-664-11	ELECT	47µF	20%	25V
C3478	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3479	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3480	1-126-933-11	ELECT	100µF	20%	16V

<CONNECTOR>

CN3051	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P
CN3401	1-770-156-21	CONNECTOR, BOARD TO BOARD 8P

<DIODE>

D3003	8-719-404-49	DIODE MA111
D3051	8-719-158-15	DIODE RD5.6SB
D3052	8-719-158-15	DIODE RD5.6SB
D3201	8-719-404-49	DIODE MA111
D3202	8-719-404-49	DIODE MA111
D3205	8-719-404-49	DIODE MA111
D3401	8-719-404-49	DIODE MA111

<FERRITE BEAD>

FB3203	1-414-135-11	FERRITE	0µH
FB3204	1-414-135-11	FERRITE	0µH
FB3205	1-414-135-11	FERRITE	0µH
FB3206	1-414-135-11	FERRITE	0µH
FB3207	1-414-135-11	FERRITE	0µH
FB3208	1-414-135-11	FERRITE	0µH
FB3209	1-414-135-11	FERRITE	0µH
FB3210	1-414-135-11	FERRITE	0µH
FB3211	1-414-135-11	FERRITE	0µH
FB3212	1-414-135-11	FERRITE	0µH
FB3213	1-414-135-11	FERRITE	0µH
FB3214	1-414-135-11	FERRITE	0µH
FB3215	1-414-135-11	FERRITE	0µH
FB3216	1-414-135-11	FERRITE	0µH
FB3401	1-414-135-11	FERRITE	0µH
FB3402	1-414-135-11	FERRITE	0µH
FB3403	1-414-135-11	FERRITE	0µH
FB3404	1-414-135-11	FERRITE	0µH
FB3405	1-414-135-11	FERRITE	0µH
FB3406	1-414-135-11	FERRITE	0µH
FB3407	1-414-135-11	FERRITE	0µH
FB3408	1-414-135-11	FERRITE	0µH
FB3409	1-414-135-11	FERRITE	0µH
FB3411	1-414-135-11	FERRITE	0µH
FB3412	1-414-135-11	FERRITE	0µH
FB3413	1-414-135-11	FERRITE	0µH
FB3414	1-414-135-11	FERRITE	0µH
FB3415	1-414-135-11	FERRITE	0µH

<FILTER>

FL3401	1-239-847-11	FILTER, LOW PASS
FL3402	1-239-847-11	FILTER, LOW PASS
FL3403	1-239-847-11	FILTER, LOW PASS

<IC>

IC3001	8-752-086-80	IC CXA2019AQ-T4
IC3002	8-759-932-69	IC BU4053BCF-T2
IC3003	8-752-080-75	IC CXA2039M-T6
IC3004	8-752-058-68	IC CXA1315M
IC3201	8-759-351-59	IC TC528257J-80(EL)
IC3202	8-752-086-80	IC CXA2019AQ-T4
IC3203	8-759-498-32	IC SAB9076H/N4
IC3204	8-759-932-69	IC BU4053BCF-T2
IC3205	8-759-932-69	IC BU4053BCF-T2
IC3402	8-759-473-05	IC UPD424210LE-60-E2
IC3403	8-759-161-24	IC UPC659AGS-E2
IC3404	8-759-536-12	IC UPD64081BGF-3BA
IC3405	8-759-445-59	IC BA033T
IC3407	8-759-701-75	IC NJM7805FA

<COIL>

L3001	1-414-187-11	INDUCTOR	47µH
L3002	1-414-187-11	INDUCTOR	47µH
L3003	1-414-187-11	INDUCTOR	47µH
L3004	1-414-187-11	INDUCTOR	47µH
L3005	1-414-187-11	INDUCTOR	47µH
L3201	1-414-187-11	INDUCTOR	47µH
L3202	1-414-187-11	INDUCTOR	47µH
L3203	1-414-187-11	INDUCTOR	47µH
L3204	1-414-187-11	INDUCTOR	47µH
L3205	1-414-187-11	INDUCTOR	47µH
L3206	1-414-187-11	INDUCTOR	47µH
L3207	1-414-187-11	INDUCTOR	47µH
L3401	1-414-181-11	INDUCTOR	4.7µH
L3402	1-414-187-11	INDUCTOR	47µH
L3403	1-414-187-11	INDUCTOR	47µH
L3404	1-414-187-11	INDUCTOR	47µH
L3405	1-414-187-11	INDUCTOR	47µH
L3406	1-414-187-11	INDUCTOR	47µH
L3407	1-414-187-11	INDUCTOR	47µH

REF. NO.	PART NO.	DESCRIPTION			REMARK
L3408	1-414-187-11	INDUCTOR	47µH		
L3409	1-414-187-11	INDUCTOR	47µH		
L3410	1-414-187-11	INDUCTOR	47µH		
		<TRANSISTOR>			
Q3001	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3002	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3003	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3004	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3005	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3006	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3007	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3008	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3009	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3010	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3201	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3202	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3203	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3204	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3205	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3206	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3207	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3208	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3209	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3210	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3211	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3214	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3217	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3401	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3402	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3403	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3404	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3405	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3406	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3407	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3408	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3409	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3410	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3411	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3412	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3413	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3414	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3415	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q3416	8-729-422-27	TRANSISTOR 2SD601A-Q			
		<RESISTOR>			
R3001	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3002	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3003	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3004	1-216-033-00	RES,CHIP	220	5%	1/10W
R3005	1-216-025-91	RES,CHIP	100	5%	1/10W
R3006	1-216-025-91	RES,CHIP	100	5%	1/10W
R3007	1-216-025-91	RES,CHIP	100	5%	1/10W
R3008	1-216-109-00	RES,CHIP	330K	5%	1/10W
R3009	1-216-037-00	RES,CHIP	330	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3010	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R3011	1-216-077-00	RES,CHIP	15K	5%	1/10W
R3012	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3013	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3014	1-216-025-91	RES,CHIP	100	5%	1/10W
R3015	1-216-025-91	RES,CHIP	100	5%	1/10W
R3016	1-216-025-91	RES,CHIP	100	5%	1/10W
R3017	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3018	1-216-295-91	CONDUCTOR, CHIP		0	
R3019	1-216-037-00	RES,CHIP	330	5%	1/10W
R3021	1-208-774-11	RES,CHIP	470	0.50%	1/10W
R3022	1-208-780-11	RES,CHIP	820	0.50%	1/10W
R3023	1-216-041-00	RES,CHIP	470	5%	1/10W
R3024	1-208-782-11	RES,CHIP	1K	0.50%	1/10W
R3025	1-216-075-00	RES,CHIP	12K	5%	1/10W
R3026	1-216-081-00	RES,CHIP	22K	5%	1/10W
R3027	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3033	1-216-025-91	RES,CHIP	100	5%	1/10W
R3034	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3035	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3036	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3037	1-208-801-11	RES,CHIP	6.2K	0.50%	1/10W
R3038	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3039	1-216-025-91	RES,CHIP	100	5%	1/10W
R3040	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3041	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R3042	1-216-025-91	RES,CHIP	100	5%	1/10W
R3043	1-216-025-91	RES,CHIP	100	5%	1/10W
R3044	1-216-025-91	RES,CHIP	100	5%	1/10W
R3045	1-216-025-91	RES,CHIP	100	5%	1/10W
R3046	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3047	1-216-025-91	RES,CHIP	100	5%	1/10W
R3048	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3049	1-216-025-91	RES,CHIP	100	5%	1/10W
R3050	1-216-025-91	RES,CHIP	100	5%	1/10W
R3051	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3052	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3053	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3055	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3202	1-216-025-91	RES,CHIP	100	5%	1/10W
R3203	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3204	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3205	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3206	1-216-025-91	RES,CHIP	100	5%	1/10W
R3207	1-216-025-91	RES,CHIP	100	5%	1/10W
R3208	1-216-025-91	RES,CHIP	100	5%	1/10W
R3209	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3210	1-216-025-91	RES,CHIP	100	5%	1/10W
R3211	1-216-025-91	RES,CHIP	100	5%	1/10W
R3212	1-216-025-91	RES,CHIP	100	5%	1/10W
R3213	1-216-025-91	RES,CHIP	100	5%	1/10W
R3214	1-216-025-91	RES,CHIP	100	5%	1/10W
R3215	1-216-025-91	RES,CHIP	100	5%	1/10W
R3216	1-216-033-00	RES,CHIP	220	5%	1/10W
R3217	1-216-025-91	RES,CHIP	100	5%	1/10W
R3218	1-216-025-91	RES,CHIP	100	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R3219	1-216-025-91	RES,CHIP	100	5%	1/10W
R3220	1-216-109-00	RES,CHIP	330K	5%	1/10W
R3222	1-216-037-00	RES,CHIP	330	5%	1/10W
R3223	1-216-025-91	RES,CHIP	100	5%	1/10W
R3224	1-216-025-91	RES,CHIP	100	5%	1/10W
R3225	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R3226	1-216-025-91	RES,CHIP	100	5%	1/10W
R3227	1-216-025-91	RES,CHIP	100	5%	1/10W
R3228	1-216-077-00	RES,CHIP	15K	5%	1/10W
R3229	1-216-025-91	RES,CHIP	100	5%	1/10W
R3230	1-216-025-91	RES,CHIP	100	5%	1/10W
R3231	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3232	1-216-025-91	RES,CHIP	100	5%	1/10W
R3233	1-216-025-91	RES,CHIP	100	5%	1/10W
R3234	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3235	1-216-025-91	RES,CHIP	100	5%	1/10W
R3236	1-216-025-91	RES,CHIP	100	5%	1/10W
R3237	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3238	1-216-025-91	RES,CHIP	100	5%	1/10W
R3239	1-216-025-91	RES,CHIP	100	5%	1/10W
R3240	1-216-025-91	RES,CHIP	100	5%	1/10W
R3241	1-216-025-91	RES,CHIP	100	5%	1/10W
R3242	1-216-025-91	RES,CHIP	100	5%	1/10W
R3243	1-216-025-91	RES,CHIP	100	5%	1/10W
R3244	1-216-025-91	RES,CHIP	100	5%	1/10W
R3245	1-216-025-91	RES,CHIP	100	5%	1/10W
R3246	1-216-025-91	RES,CHIP	100	5%	1/10W
R3247	1-216-041-00	RES,CHIP	470	5%	1/10W
R3248	1-216-037-00	RES,CHIP	330	5%	1/10W
R3249	1-208-774-11	RES,CHIP	470	0.50%	1/10W
R3251	1-208-780-11	RES,CHIP	820	0.50%	1/10W
R3252	1-216-025-91	RES,CHIP	100	5%	1/10W
R3253	1-216-041-00	RES,CHIP	470	5%	1/10W
R3254	1-208-782-11	RES,CHIP	1K	0.50%	1/10W
R3255	1-216-075-00	RES,CHIP	12K	5%	1/10W
R3256	1-216-081-00	RES,CHIP	22K	5%	1/10W
R3257	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3258	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3259	1-216-025-91	RES,CHIP	100	5%	1/10W
R3260	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3261	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3262	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3263	1-208-764-11	RES,CHIP	180	0.50%	1/10W
R3264	1-208-764-11	RES,CHIP	180	0.50%	1/10W
R3265	1-208-765-11	RES,CHIP	200	0.50%	1/10W
R3266	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3267	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R3268	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R3269	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R3270	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3271	1-216-025-91	RES,CHIP	100	5%	1/10W
R3277	1-216-025-91	RES,CHIP	100	5%	1/10W
R3285	1-216-009-00	RES,CHIP	22	5%	1/10W
R3287	1-216-009-00	RES,CHIP	22	5%	1/10W
R3288	1-216-009-00	RES,CHIP	22	5%	1/10W
R3291	1-216-009-00	RES,CHIP	22	5%	1/10W
R3294	1-216-009-00	RES,CHIP	22	5%	1/10W
R3295	1-216-009-00	RES,CHIP	22	5%	1/10W
R3297	1-216-025-91	RES,CHIP	100	5%	1/10W
R3298	1-216-295-91	CONDUCTOR, CHIP		0	
R3307	1-216-025-91	RES,CHIP	100	5%	1/10W
R3308	1-216-025-91	RES,CHIP	100	5%	1/10W
R3309	1-216-025-91	RES,CHIP	100	5%	1/10W
R3311	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3312	1-216-025-91	RES,CHIP	100	5%	1/10W
R3313	1-216-295-91	CONDUCTOR, CHIP		0	
R3401	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3402	1-216-295-91	CONDUCTOR, CHIP		0	
R3407	1-216-041-00	RES,CHIP	470	5%	1/10W
R3408	1-216-045-00	RES,CHIP	680	5%	1/10W
R3409	1-216-025-91	RES,CHIP	100	5%	1/10W
R3410	1-216-025-91	RES,CHIP	100	5%	1/10W
R3411	1-216-295-91	CONDUCTOR, CHIP		0	
R3412	1-216-025-91	RES,CHIP	100	5%	1/10W
R3413	1-216-025-91	RES,CHIP	100	5%	1/10W
R3414	1-216-295-91	CONDUCTOR, CHIP		0	
R3415	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3416	1-216-295-91	CONDUCTOR, CHIP		0	
R3417	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3418	1-216-295-91	CONDUCTOR, CHIP		0	
R3419	1-216-025-91	RES,CHIP	100	5%	1/10W
R3420	1-208-822-11	RES,CHIP	47K	0.50%	1/10W
R3421	1-216-025-91	RES,CHIP	100	5%	1/10W
R3422	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3426	1-216-025-91	RES,CHIP	100	5%	1/10W
R3427	1-216-025-91	RES,CHIP	100	5%	1/10W
R3428	1-208-812-11	RES,CHIP	18K	0.50%	1/10W
R3429	1-216-021-00	RES,CHIP	68	5%	1/10W
R3430	1-216-025-91	RES,CHIP	100	5%	1/10W
R3431	1-216-025-91	RES,CHIP	100	5%	1/10W
R3432	1-216-025-91	RES,CHIP	100	5%	1/10W
R3433	1-216-025-91	RES,CHIP	100	5%	1/10W
R3434	1-216-025-91	RES,CHIP	100	5%	1/10W
R3436	1-216-025-91	RES,CHIP	100	5%	1/10W
R3437	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3438	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3439	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3440	1-208-776-11	RES,CHIP	560	0.50%	1/10W
R3441	1-208-776-11	RES,CHIP	560	0.50%	1/10W
R3442	1-216-041-00	RES,CHIP	470	5%	1/10W
R3444	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3445	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3446	1-208-800-11	RES,CHIP	5.6K	0.50%	1/10W
R3447	1-208-800-11	RES,CHIP	5.6K	0.50%	1/10W
R3448	1-216-105-91	RES,CHIP	220K	5%	1/10W
R3449	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R3450	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3451	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3452	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3453	1-208-772-11	RES,CHIP	390	0.50%	1/10W
R3455	1-208-775-11	RES,CHIP	510	0.50%	1/10W
R3456	1-216-025-91	RES,CHIP	100	5%	1/10W
R3458	1-216-033-00	RES,CHIP	220	5%	1/10W
R3459	1-216-648-11	RES,CHIP	750	0.50%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R3460	1-208-776-11	RES,CHIP	560	0.50%	1/10W
R3461	1-216-047-91	RES,CHIP	820	5%	1/10W
R3462	1-208-790-11	RES,CHIP	2.2K	0.50%	1/10W
R3463	1-216-047-91	RES,CHIP	820	5%	1/10W
R3464	1-208-778-11	RES,CHIP	680	0.50%	1/10W
R3465	1-216-075-00	RES,CHIP	12K	5%	1/10W
R3466	1-216-085-00	RES,CHIP	33K	5%	1/10W
R3467	1-208-790-11	RES,CHIP	2.2K	0.50%	1/10W
R3468	1-216-075-00	RES,CHIP	12K	5%	1/10W
R3469	1-216-085-00	RES,CHIP	33K	5%	1/10W
R3470	1-208-800-11	RES,CHIP	5.6K	0.50%	1/10W
R3472	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3473	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3474	1-216-017-91	RES,CHIP	47	5%	1/10W
R3475	1-216-017-91	RES,CHIP	47	5%	1/10W
R3477	1-208-776-11	RES,CHIP	560	0.50%	1/10W
R3478	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3479	1-216-025-91	RES,CHIP	100	5%	1/10W
		<CRYSTAL>			
X3001	1-577-611-11	OSCILALTOR, CERAMIC			
X3002	1-567-505-11	OSCILLATOR, CRYSTAL			
X3201	1-577-611-11	OSCILALTOR, CERAMIC			
X3202	1-567-505-11	OSCILLATOR, CRYSTAL			
X3401	1-767-882-21	VIBRATOR, CRYSTAL			
**********					
*	A-1298-550-A	A BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C001	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C004	1-126-933-11	ELECT	100µF	20%	16V
C005	1-126-964-11	ELECT	10µF	20%	50V
C006	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C017	1-163-809-11	CERAMIC CHIP	0.047µF	10%	25V
C018	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C019	1-126-960-11	ELECT	1µF	20%	50V
C021	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C022	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C024	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C025	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C026	1-107-714-11	ELECT	10µF	20%	16V
C027	1-126-935-11	ELECT	470µF	20%	16V
C028	1-107-714-11	ELECT	10µF	20%	16V
C032	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C033	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C034	1-163-809-11	CERAMIC CHIP	0.047µF	10%	25V
C035	1-104-664-11	ELECT	47µF	20%	25V
C036	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C037	1-163-237-11	CERAMIC CHIP	27PF	5%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C038	1-126-960-11	ELECT	1µF	20%	50V
C045	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C046	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C047	1-163-010-11	CERAMIC CHIP	0.0012µF	10%	50V
C048	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C054	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C057	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C092	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C107	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C108	1-104-664-11	ELECT	47µF	20%	25V
C109	1-126-916-11	ELECT	1000µF	20%	6.3V
C110	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C111	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C119	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C120	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C121	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C124	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C202	1-126-935-11	ELECT	470µF	20%	16V
C203	1-126-935-11	ELECT	470µF	20%	16V
C204	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C205	1-126-964-11	ELECT	10µF	20%	50V
C206	1-126-959-11	ELECT	0.47µF	20%	50V
C207	1-126-959-11	ELECT	0.47µF	20%	50V
C208	1-126-959-11	ELECT	0.47µF	20%	50V
C209	1-126-964-11	ELECT	10µF	20%	50V
C210	1-126-964-11	ELECT	10µF	20%	50V
C211	1-126-964-11	ELECT	10µF	20%	50V
C212	1-126-964-11	ELECT	10µF	20%	50V
C213	1-126-964-11	ELECT	10µF	20%	50V
C214	1-126-964-11	ELECT	10µF	20%	50V
C215	1-126-964-11	ELECT	10µF	20%	50V
C216	1-126-964-11	ELECT	10µF	20%	50V
C218	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C219	1-126-964-11	ELECT	10µF	20%	50V
C220	1-126-964-11	ELECT	10µF	20%	50V
C221	1-126-959-11	ELECT	0.47µF	20%	50V
C222	1-126-959-11	ELECT	0.47µF	20%	50V
C223	1-126-959-11	ELECT	0.47µF	20%	50V
C224	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C225	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C226	1-126-964-11	ELECT	10µF	20%	50V
C232	1-126-959-11	ELECT	0.47µF	20%	50V
C302	1-126-959-11	ELECT	0.47µF	20%	50V
C303	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C304	1-126-964-11	ELECT	10µF	20%	50V
C305	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C308	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C309	1-126-933-11	ELECT	100µF	20%	16V
C310	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C311	1-115-419-11	CERAMIC CHIP	3300PF	5%	25V
C312	1-126-959-11	ELECT	0.47µF	20%	50V
C313	1-130-495-00	FILM	0.1µF	5%	50V
C314	1-130-495-00	FILM	0.1µF	5%	50V
C315	1-130-495-00	FILM	0.1µF	5%	50V
C316	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C317	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C318	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C319	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C320	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C321	1-126-963-11	ELECT	4.7µF	20%	50V
C322	1-130-495-00	MYLAR	0.1µF	5%	50V
C323	1-137-581-11	FILM	0.1µF	5%	100V
C324	1-164-182-11	CERAMIC CHIP	0.0033µF	10%	50V
C325	1-126-959-11	ELECT	0.47µF	20%	50V
C326	1-126-964-11	ELECT	10µF	20%	50V
C329	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C330	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C331	1-126-959-11	ELECT	0.47µF	20%	50V
C332	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C333	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C334	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C335	1-126-935-11	ELECT	470µF	20%	16V
C337	1-126-960-11	ELECT	1µF	20%	50V
C338	1-126-961-11	ELECT	2.2µF	20%	50V
C339	1-126-959-11	ELECT	0.47µF	20%	50V
C341	1-104-664-11	ELECT	47µF	20%	25V
C342	1-130-495-00	FILM	0.1µF	5%	50V
C344	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C345	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C349	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C351	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C401	1-126-964-11	ELECT	10µF	20%	50V
C402	1-126-964-11	ELECT	10µF	20%	50V
C403	1-137-366-11	FILM	0.0022µF	5%	50V
C404	1-137-366-11	FILM	0.0022µF	5%	50V
C405	1-130-495-00	FILM	0.1µF	5%	50V
C406	1-130-495-00	FILM	0.1µF	5%	50V
C407	1-126-960-11	ELECT	1µF	20%	50V
C408	1-137-366-11	FILM	0.0022µF	5%	50V
C409	1-137-366-11	FILM	0.0022µF	5%	50V
C410	1-130-495-00	FILM	0.1µF	5%	50V
C411	1-130-495-00	FILM	0.1µF	5%	50V
C412	1-126-933-11	ELECT	100µF	20%	16V
C413	1-128-551-11	ELECT	22µF	20%	25V
C414	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C415	1-126-964-11	ELECT	10µF	20%	50V
C416	1-126-964-11	ELECT	10µF	20%	50V
C417	1-126-968-11	ELECT	100µF	20%	50V
C418	1-126-964-11	ELECT	10µF	20%	50V
C419	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C420	1-126-969-11	ELECT	220µF	20%	50V
C421	1-126-963-11	ELECT	4.7µF	20%	50V
C422	1-104-664-11	ELECT	47µF	20%	25V
C424	1-126-968-11	ELECT	100µF	20%	50V
C425	1-126-935-11	ELECT	470µF	20%	16V
C426	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C427	1-126-933-11	ELECT	100µF	20%	16V
C428	1-126-969-11	ELECT	220µF	20%	50V
C429	1-163-033-91	CERAMIC CHIP	0.022µF		50V
C430	1-130-495-00	FILM	0.1µF	5%	50V
C431	1-128-548-11	ELECT	4700µF	20%	25V
C432	1-128-548-11	ELECT	4700µF	20%	25V
C433	1-130-495-00	FILM	0.1µF	5%	50V
C434	1-126-960-11	ELECT	1µF	20%	50V
C435	1-126-968-11	ELECT	100µF	20%	50V
C436	1-128-550-11	ELECT	2200µF	20%	50V
C437	1-126-960-11	ELECT	1µF	20%	50V
C438	1-126-964-11	ELECT	10µF	20%	50V
C439	1-126-964-11	ELECT	10µF	20%	50V
C440	1-126-964-11	ELECT	10µF	20%	50V
C441	1-126-964-11	ELECT	10µF	20%	50V
C442	1-130-495-00	FILM	0.1µF	5%	50V
C1101	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1102	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1103	1-126-933-11	ELECT	100µF	20%	16V
C1104	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1105	1-126-960-11	ELECT	1µF	20%	50V
C1106	1-126-933-11	ELECT	100µF	20%	16V
C1107	1-104-664-11	ELECT	47µF	20%	25V
C1108	1-126-964-11	ELECT	10µF	20%	50V
C1109	1-126-933-11	ELECT	100µF	20%	16V
C1110	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1111	1-126-960-11	ELECT	1µF	20%	50V
C1112	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1113	1-126-964-11	ELECT	10µF	20%	50V
C1114	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1115	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1116	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1117	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1118	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1119	1-126-968-11	ELECT	100µF	20%	50V
C1120	1-126-933-11	ELECT	100µF	20%	16V
C1122	1-104-664-11	ELECT	47µF	20%	25V
C1124	1-104-664-11	ELECT	47µF	20%	25V
C1125	1-104-664-11	ELECT	47µF	20%	25V
C1201	1-126-959-11	ELECT	0.47µF	20%	50V
C1202	1-104-664-11	ELECT	47µF	20%	25V
C1203	1-104-664-11	ELECT	47µF	20%	25V
C1204	1-126-959-11	ELECT	0.47µF	20%	50V
C1205	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1206	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1207	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1208	1-128-551-11	ELECT	22µF	20%	25V
C1209	1-126-933-11	ELECT	100µF	20%	16V
C1210	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1213	1-126-933-11	ELECT	100µF	20%	16V
C1501	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1502	1-107-504-11	CERAMIC	10PF	0.5PF	500V
C1503	1-136-177-00	FILM	1µF	5%	50V
C1506	1-126-969-11	ELECT	220µF	20%	50V
C1507	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C1508	1-137-401-11	FILM	0.22µF	10%	100V
C1509	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1510	1-126-942-61	ELECT	1000µF	20%	25V
C1511	1-126-942-61	ELECT	1000µF	20%	25V
C1513	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1514	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1517	1-126-964-11	ELECT	10µF	20%	50V
C1518	1-126-933-11	ELECT	100µF	20%	16V
C1519	1-126-933-11	ELECT	100µF	20%	16V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C1520	1-126-964-11	ELECT	10µF	20%	50V
C1521	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1522	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1523	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C1524	1-137-150-11	MYLAR	0.01µF	10%	100V
C1525	1-106-220-00	MYLAR	0.1µF	10%	100V
C1601	1-126-935-11	ELECT	470µF	20%	16V
C1602	1-126-767-11	ELECT	1000µF	20%	16V
C1603	1-126-916-11	ELECT	1000µF	20%	6.3V
C1604	1-126-934-11	ELECT	220µF	20%	16V
C1605	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1606	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1607	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1608	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1609	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1610	1-126-933-11	ELECT	100µF	20%	16V
C1611	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1612	1-104-664-11	ELECT	47µF	20%	25V
C1613	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C1614	1-104-664-11	ELECT	47µF	20%	25V
C2101	1-126-960-11	ELECT	1µF	20%	50V
C2102	1-126-964-11	ELECT	10µF	20%	50V
C2103	1-163-031-11	CERAMIC CHIP	0.01µF		50V
C2105	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C2201	1-126-964-11	ELECT	10µF	20%	50V
C2202	1-126-964-11	ELECT	10µF	20%	50V
C2203	1-130-488-00	MYLAR	0.027µF	5%	50V
C2204	1-137-368-11	FILM	0.0047µF	5%	50V
C2205	1-136-356-11	FILM	470PF	5%	50V
C2206	1-136-899-11	MYLAR	0.47µF	5%	50V
C2207	1-137-368-11	FILM	0.0047µF	5%	50V
C2208	1-130-495-00	FILM	0.1µF	5%	50V
C2209	1-136-899-11	MYLAR	0.47µF	5%	50V
C2210	1-137-371-11	FILM	0.015µF	5%	50V
C2211	1-137-366-11	FILM	0.0022µF	5%	50V
C2212	1-137-368-11	FILM	0.0047µF	5%	50V
C2213	1-136-899-11	MYLAR	0.47µF	5%	50V
C2214	1-130-495-00	FILM	0.1µF	5%	50V
C2215	1-137-370-11	FILM	0.01µF	5%	50V
C2216	1-104-664-11	ELECT	47µF	20%	25V
C2217	1-137-370-11	FILM	0.01µF	5%	50V
C2218	1-130-495-00	FILM	0.1µF	5%	50V
C2219	1-137-370-11	FILM	0.01µF	5%	50V
C2220	1-130-495-00	FILM	0.1µF	5%	50V
C2221	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C2222	1-126-933-11	ELECT	100µF	20%	16V
C2223	1-126-964-11	ELECT	10µF	20%	50V
C2224	1-126-964-11	ELECT	10µF	20%	50V
C2225	1-126-964-11	ELECT	10µF	20%	50V

<FILTER BLOCK>

CM201	1-467-554-21	FILTER BLOCK, COMB

<CONNECTOR>

CN001 *	1-564-507-11	PLUG, CONNECTOR 4P
CN002 *	1-564-511-11	PLUG, CONNECTOR 8P
CN003 *	1-774-183-11	CONNECTOR, BOARD TOBOARD10P
CN004	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P
CN201 *	1-564-511-11	PLUG, CONNECTOR 8P
CN202 *	1-564-506-11	PLUG, CONNECTOR 3P
CN301 *	1-774-183-11	CONNECTOR, BOARD TOBOARD10P
CN302 *	1-564-508-11	PLUG, CONNECTOR 5P
CN303 *	1-564-512-11	PLUG, CONNECTOR 9P
CN304	1-770-155-21	CONNECTOR, BOARD TO BOARD 8P
CN305	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P
CN401 *	1-564-507-11	PLUG, CONNECTOR 4P
CN403	1-695-915-11	TAB (CONTACT)
CN1101*	1-564-514-11	PLUG, CONNECTOR 11P
CN1501*	1-564-506-11	PLUG, CONNECTOR 3P
CN1601*	1-774-183-11	CONNECTOR, BOARD TOBOARD10P
CN1602*	1-774-183-11	CONNECTOR, BOARD TOBOARD10P
CN2101*	1-564-510-11	PLUG, CONNECTOR 7P

<DIODE>

D001	8-719-991-33	DIODE 1SS133T-77
D002	8-719-991-33	DIODE 1SS133T-77
D003	8-719-991-33	DIODE 1SS133T-77
D004	8-719-991-33	DIODE 1SS133T-77
D007	8-719-109-89	DIODE RD5.6ESB2
D008	8-719-991-33	DIODE 1SS133T-77
D010	8-719-109-89	DIODE RD5.6ESB2
D011	8-719-109-89	DIODE RD5.6ESB2
D202	8-719-110-17	DIODE RD10ESB2
D205	8-719-110-17	DIODE RD10ESB2
D209	8-719-110-17	DIODE RD10ESB2
D210	8-719-110-17	DIODE RD10ESB2
D211	8-719-110-17	DIODE RD10ESB2
D212	8-719-991-33	DIODE 1SS133T-77
D213	8-719-991-33	DIODE 1SS133T-77
D214	8-719-110-17	DIODE RD10ESB2
D215	8-719-110-17	DIODE RD10ESB2
D216	8-719-110-17	DIODE RD10ESB2
D217	8-719-110-17	DIODE RD10ESB2
D218	8-719-110-17	DIODE RD10ESB2
D219	8-719-110-17	DIODE RD10ESB2
D220	8-719-110-17	DIODE RD10ESB2
D221	8-719-110-17	DIODE RD10ESB2
D222	8-719-110-17	DIODE RD10ESB2
D225	8-719-983-38	DIODE MTZJ-T-77-36B
D226	8-719-983-38	DIODE MTZJ-T-77-36B
D234	8-719-110-17	DIODE RD10ESB2
D235	8-719-110-17	DIODE RD10ESB2
D236	8-719-110-17	DIODE RD10ESB2
D237	8-719-110-17	DIODE RD10ESB2
D238	8-719-110-17	DIODE RD10ESB2
D241	8-719-991-33	DIODE 1SS133T-77
D305	8-719-110-17	DIODE RD10ESB2
D401	8-719-404-49	DIODE MA111
D402	8-719-057-00	DIODE UDZ-TE-17-36B
D403	8-719-057-00	DIODE UDZ-TE-17-36B
D404	8-719-991-33	DIODE 1SS133T-77

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REF. NO.	PART NO.	DESCRIPTION	REMARK
D405	8-719-991-33	DIODE 1SS133T-77	
D406	8-719-991-33	DIODE 1SS133T-77	
D407	8-719-991-33	DIODE 1SS133T-77	
D408	8-719-991-33	DIODE 1SS133T-77	
D409	8-719-991-33	DIODE 1SS133T-77	
D410	8-719-057-00	DIODE UDZ-TE-17-36B	
D411	8-719-929-15	DIODE HZS9.1NB2	
D412	8-719-991-33	DIODE 1SS133T-77	
D1101	8-719-982-26	DIODE MTZJ-33B	
D1501	8-719-109-89	DIODE RD5.6ESB2	
D1502	8-719-908-03	DIODE GP08D	
D2101	8-719-991-33	DIODE 1SS133T-77	
D2102	8-719-991-33	DIODE 1SS133T-77	
D2201	8-719-991-33	DIODE 1SS133T-77	
		<FERRITE BEAD>	
FB1102	1-414-135-11	FERRITE 0µH	
		<IC>	
IC001	8-752-895-38	IC CXP85856A-010S	
IC002	8-752-861-57	IC CXP85112B-613S	
IC003	8-759-352-91	IC PST9143NL	
IC004	8-759-352-91	IC PST9143NL	
IC007	8-759-518-23	IC X24C04S8	
IC201	8-752-081-32	IC CXA2079Q	
IC202	8-759-100-96	IC UPC4558G2	
IC301	8-752-076-76	IC CXA2025AS	
IC401	8-759-369-39	IC BH3856FS-E2	
IC402	8-759-100-96	IC UPC4558G2	
IC403	8-759-100-96	IC UPC4558G2	
IC404	8-759-168-24	IC TA8200AH	
IC1101	8-759-231-53	IC TA7805S	
IC1501	8-759-192-71	IC STV9379	
IC1502	8-759-251-31	IC CA0007AM	
IC1601	8-759-459-99	IC PQ09RD11	
IC1602	8-759-231-53	IC TA7805S	
IC1603	8-759-459-99	IC PQ09RD11	
IC2101	8-759-470-63	IC NJM2145M-TE2	
IC2201	8-759-493-92	IC NJM2178M-T2	
IC2202	8-759-231-58	IC TA7812S	
		<JACK>	
J201	1-774-751-11	TERMINAL BLOCK, S	
J202	1-774-751-11	TERMINAL BLOCK, S	
J203	1-774-749-11	JACK BLOCK, PIN	
J204	1-774-749-11	JACK BLOCK, PIN	
J205	1-774-750-11	JACK BLOCK, PIN	
		<CHIP CONDUCTOR>	
JR11	1-216-295-91	CONDUCTOR, CHIP 0	
JR20	1-216-295-91	CONDUCTOR, CHIP 0	
JR21	1-216-295-91	CONDUCTOR, CHIP 0	
JR22	1-216-295-91	CONDUCTOR, CHIP 0	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L002	1-414-857-11	INDUCTOR 100µH	
L003	1-414-857-11	INDUCTOR 100µH	
L004	1-216-295-91	CONDUCTOR, CHIP 0	
L005	1-216-295-91	CONDUCTOR, CHIP 0	
L006	1-414-856-11	INDUCTOR 10µH	
L007	1-414-857-11	INDUCTOR 100µH	
L201	1-414-187-11	INDUCTOR 47µH	
L202	1-414-187-11	INDUCTOR 47µH	
L302	1-414-857-11	INDUCTOR 100µH	
L303	1-414-856-11	INDUCTOR 10µH	
L1101	1-414-187-11	INDUCTOR 47µH	
L1103	1-414-187-11	INDUCTOR 47µH	
L1104	1-414-187-11	INDUCTOR 47µH	
L1105	1-414-856-11	INDUCTOR 10µH	
L1106	1-414-187-11	INDUCTOR 47µH	
L1501	1-412-524-11	INDUCTOR 8.2µH	
L1502	1-412-533-21	INDUCTOR 47µH	
L1503	1-412-533-21	INDUCTOR 47µH	
L1601	1-406-975-21	INDUCTOR 0µH	
		<NEON LAMP>	
NL1501	1-517-778-21	LAMP, NEON	
		<IC LINK>	
PS401	1-532-984-11	LINK, IC 2A/90V	
		<TRANSISTOR>	
Q001	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q002	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q003	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	8-729-216-22	TRANSISTOR 2SA1162-G	
Q006	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q007	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q008	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q009	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q013	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q015	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q016	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q017	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q201	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q202	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q203	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q206	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q207	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q208	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q209	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q210	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q211	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q212	8-729-422-27	TRANSISTOR 2SD601A-Q	

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
Q214	8-729-216-22	TRANSISTOR 2SA1162-G	
Q215	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q216	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q217	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q218	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q219	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q220	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q222	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q223	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q224	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q226	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q304	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q305	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q307	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
Q311	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q312	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q313	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q314	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q401	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q402	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q404	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q407	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q408	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q409	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1101	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1501	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2101	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2102	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2103	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2104	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2106	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2107	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2109	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2111	1-801-806-11	TRANSISTOR DTC144EKA-T146	

<RESISTOR>

R001	1-216-033-00	RES,CHIP	220	5%	1/10W
R002	1-216-033-00	RES,CHIP	220	5%	1/10W
R003	1-216-295-91	CONDUCTOR, CHIP		0	
R004	1-216-033-00	RES,CHIP	220	5%	1/10W
R005	1-216-033-00	RES,CHIP	220	5%	1/10W
R006	1-216-033-00	RES,CHIP	220	5%	1/10W
R007	1-216-081-00	RES,CHIP	22K	5%	1/10W
R008	1-216-073-00	RES,CHIP	10K	5%	1/10W
R009	1-216-033-00	RES,CHIP	220	5%	1/10W
R010	1-216-033-00	RES,CHIP	220	5%	1/10W
R011	1-216-033-00	RES,CHIP	220	5%	1/10W
R012	1-216-033-00	RES,CHIP	220	5%	1/10W
R013	1-216-033-00	RES,CHIP	220	5%	1/10W
R014	1-216-033-00	RES,CHIP	220	5%	1/10W
R015	1-216-025-91	RES,CHIP	100	5%	1/10W
R016	1-216-025-91	RES,CHIP	100	5%	1/10W
R017	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R018	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R019	1-216-073-00	RES,CHIP	10K	5%	1/10W
R020	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R021	1-216-089-91	RES,CHIP	47K	5%	1/10W
R022	1-216-033-00	RES,CHIP	220	5%	1/10W
R023	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R024	1-216-121-91	RES,CHIP	1M	5%	1/10W
R025	1-216-097-91	RES,CHIP	100K	5%	1/10W
R027	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R029	1-216-033-00	RES,CHIP	220	5%	1/10W
R030	1-216-073-00	RES,CHIP	10K	5%	1/10W
R033	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R034	1-216-073-00	RES,CHIP	10K	5%	1/10W
R035	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R036	1-216-033-00	RES,CHIP	220	5%	1/10W
R037	1-216-033-00	RES,CHIP	220	5%	1/10W
R038	1-216-089-91	RES,CHIP	47K	5%	1/10W
R039	1-216-089-91	RES,CHIP	47K	5%	1/10W
R040	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R041	1-216-025-91	RES,CHIP	100	5%	1/10W
R042	1-216-089-91	RES,CHIP	47K	5%	1/10W
R043	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R045	1-216-073-00	RES,CHIP	10K	5%	1/10W
R046	1-216-049-91	RES,CHIP	1K	5%	1/10W
R047	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R048	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R050	1-216-073-00	RES,CHIP	10K	5%	1/10W
R053	1-216-049-91	RES,CHIP	1K	5%	1/10W
R054	1-216-033-00	RES,CHIP	220	5%	1/10W
R056	1-216-121-91	RES,CHIP	1M	5%	1/10W
R057	1-216-049-91	RES,CHIP	1K	5%	1/10W
R058	1-216-049-91	RES,CHIP	1K	5%	1/10W
R059	1-216-033-00	RES,CHIP	220	5%	1/10W
R060	1-216-033-00	RES,CHIP	220	5%	1/10W
R061	1-216-049-91	RES,CHIP	1K	5%	1/10W
R063	1-216-073-00	RES,CHIP	10K	5%	1/10W
R064	1-216-049-91	RES,CHIP	1K	5%	1/10W
R065	1-216-049-91	RES,CHIP	1K	5%	1/10W
R066	1-216-049-91	RES,CHIP	1K	5%	1/10W
R067	1-216-033-00	RES,CHIP	220	5%	1/10W
R068	1-216-033-00	RES,CHIP	220	5%	1/10W
R069	1-216-033-00	RES,CHIP	220	5%	1/10W
R070	1-216-033-00	RES,CHIP	220	5%	1/10W
R071	1-216-033-00	RES,CHIP	220	5%	1/10W
R072	1-216-033-00	RES,CHIP	220	5%	1/10W
R073	1-216-033-00	RES,CHIP	220	5%	1/10W
R074	1-216-049-91	RES,CHIP	1K	5%	1/10W
R075	1-216-049-91	RES,CHIP	1K	5%	1/10W
R076	1-216-033-00	RES,CHIP	220	5%	1/10W
R077	1-216-121-91	RES,CHIP	1M	5%	1/10W
R078	1-216-097-91	RES,CHIP	100K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R080	1-216-049-91	RES,CHIP	1K	5%	1/10W
R081	1-216-033-00	RES,CHIP	220	5%	1/10W
R084	1-216-073-00	RES,CHIP	10K	5%	1/10W
R085	1-216-097-91	RES,CHIP	100K	5%	1/10W
R086	1-216-033-00	RES,CHIP	220	5%	1/10W
R087	1-216-073-00	RES,CHIP	10K	5%	1/10W
R088	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R090	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R091	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R092	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R099	1-216-037-00	RES,CHIP	330	5%	1/10W
R101	1-216-033-00	RES,CHIP	220	5%	1/10W
R106	1-216-033-00	RES,CHIP	220	5%	1/10W
R111	1-216-033-00	RES,CHIP	220	5%	1/10W
R112	1-216-033-00	RES,CHIP	220	5%	1/10W
R113	1-216-033-00	RES,CHIP	220	5%	1/10W
R115	1-216-033-00	RES,CHIP	220	5%	1/10W
R117	1-216-033-00	RES,CHIP	220	5%	1/10W
R118	1-216-033-00	RES,CHIP	220	5%	1/10W
R119	1-216-033-00	RES,CHIP	220	5%	1/10W
R120	1-216-033-00	RES,CHIP	220	5%	1/10W
R121	1-216-033-00	RES,CHIP	220	5%	1/10W
R122	1-216-033-00	RES,CHIP	220	5%	1/10W
R123	1-216-033-00	RES,CHIP	220	5%	1/10W
R124	1-216-033-00	RES,CHIP	220	5%	1/10W
R125	1-216-033-00	RES,CHIP	220	5%	1/10W
R126	1-216-033-00	RES,CHIP	220	5%	1/10W
R127	1-216-033-00	RES,CHIP	220	5%	1/10W
R128	1-216-033-00	RES,CHIP	220	5%	1/10W
R129	1-216-033-00	RES,CHIP	220	5%	1/10W
R131	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R132	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R133	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R147	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R148	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R149	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R154	1-216-025-91	RES,CHIP	100	5%	1/10W
R155	1-216-025-91	RES,CHIP	100	5%	1/10W
R156	1-216-113-00	RES,CHIP	470K	5%	1/10W
R157	1-216-017-91	RES,CHIP	47	5%	1/10W
R158	1-216-113-00	RES,CHIP	470K	5%	1/10W
R159	1-216-017-91	RES,CHIP	47	5%	1/10W
R160	1-216-113-00	RES,CHIP	470K	5%	1/10W
R161	1-216-017-91	RES,CHIP	47	5%	1/10W
R163	1-216-035-00	RES,CHIP	270	5%	1/10W
R164	1-216-035-00	RES,CHIP	270	5%	1/10W
R165	1-216-035-00	RES,CHIP	270	5%	1/10W
R171	1-208-769-11	RES,CHIP	300	0.50%	1/10W
R172	1-208-769-11	RES,CHIP	300	0.50%	1/10W
R173	1-208-769-11	RES,CHIP	300	0.50%	1/10W
R201	1-216-022-00	RES,CHIP	75	5%	1/10W
R202	1-216-089-91	RES,CHIP	47K	5%	1/10W
R203	1-216-022-00	RES,CHIP	75	5%	1/10W
R205	1-216-089-91	RES,CHIP	47K	5%	1/10W
R206	1-216-022-00	RES,CHIP	75	5%	1/10W
R207	1-216-022-00	RES,CHIP	75	5%	1/10W
R208	1-216-049-91	RES,CHIP	1K	5%	1/10W
R209	1-216-089-91	RES,CHIP	47K	5%	1/10W
R210	1-216-113-00	RES,CHIP	470K	5%	1/10W
R211	1-216-113-00	RES,CHIP	470K	5%	1/10W
R212	1-216-089-91	RES,CHIP	47K	5%	1/10W
R213	1-216-113-00	RES,CHIP	470K	5%	1/10W
R214	1-216-113-00	RES,CHIP	470K	5%	1/10W
R215	1-216-089-91	RES,CHIP	47K	5%	1/10W
R216	1-216-113-00	RES,CHIP	470K	5%	1/10W
R217	1-216-113-00	RES,CHIP	470K	5%	1/10W
R218	1-216-022-00	RES,CHIP	75	5%	1/10W
R219	1-216-113-00	RES,CHIP	470K	5%	1/10W
R220	1-216-113-00	RES,CHIP	470K	5%	1/10W
R221	1-216-022-00	RES,CHIP	75	5%	1/10W
R222	1-216-022-00	RES,CHIP	75	5%	1/10W
R223	1-216-022-00	RES,CHIP	75	5%	1/10W
R224	1-216-017-91	RES,CHIP	47	5%	1/10W
R225	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R226	1-216-073-00	RES,CHIP	10K	5%	1/10W
R227	1-216-019-00	RES,CHIP	56	5%	1/10W
R228	1-216-017-91	RES,CHIP	47	5%	1/10W
R229	1-216-049-91	RES,CHIP	1K	5%	1/10W
R230	1-216-113-00	RES,CHIP	470K	5%	1/10W
R231	1-216-113-00	RES,CHIP	470K	5%	1/10W
R232	1-216-041-00	RES,CHIP	470	5%	1/10W
R233	1-216-041-00	RES,CHIP	470	5%	1/10W
R234	1-216-041-00	RES,CHIP	470	5%	1/10W
R235	1-216-041-00	RES,CHIP	470	5%	1/10W
R236	1-216-041-00	RES,CHIP	470	5%	1/10W
R240	1-216-081-00	RES,CHIP	22K	5%	1/10W
R241	1-216-041-00	RES,CHIP	470	5%	1/10W
R242	1-216-081-00	RES,CHIP	22K	5%	1/10W
R243	1-216-081-00	RES,CHIP	22K	5%	1/10W
R244	1-208-775-11	RES,CHIP	510	0.50%	1/10W
R245	1-216-041-00	RES,CHIP	470	5%	1/10W
R246	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R247	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R248	1-216-073-00	RES,CHIP	10K	5%	1/10W
R249	1-208-774-11	RES,CHIP	470	0.50%	1/10W
R250	1-216-041-00	RES,CHIP	470	5%	1/10W
R251	1-216-041-00	RES,CHIP	470	5%	1/10W
R252	1-208-776-11	RES,CHIP	560	0.50%	1/10W
R253	1-208-774-11	RES,CHIP	470	0.50%	1/10W
R254	1-208-776-11	RES,CHIP	560	0.50%	1/10W
R255	1-216-073-00	RES,CHIP	10K	5%	1/10W
R258	1-216-089-91	RES,CHIP	47K	5%	1/10W
R260	1-208-774-11	RES,CHIP	470	0.50%	1/10W
R261	1-216-049-91	RES,CHIP	1K	5%	1/10W
R262	1-216-049-91	RES,CHIP	1K	5%	1/10W
R264	1-216-025-91	RES,CHIP	100	5%	1/10W
R265	1-216-041-00	RES,CHIP	470	5%	1/10W
R266	1-216-045-00	RES,CHIP	680	5%	1/10W
R267	1-216-041-00	RES,CHIP	470	5%	1/10W
R268	1-216-041-00	RES,CHIP	470	5%	1/10W
R269	1-216-041-00	RES,CHIP	470	5%	1/10W
R273	1-216-041-00	RES,CHIP	470	5%	1/10W
R274	1-216-019-00	RES,CHIP	56	5%	1/10W
R294	1-216-043-91	RES,CHIP	560	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R295	1-216-073-00	RES,CHIP	10K	5%	1/10W
R298	1-216-041-00	RES,CHIP	470	5%	1/10W
R299	1-216-041-00	RES,CHIP	470	5%	1/10W
R301	1-216-041-00	RES,CHIP	470	5%	1/10W
R302	1-216-049-91	RES,CHIP	1K	5%	1/10W
R303	1-216-049-91	RES,CHIP	1K	5%	1/10W
R304	1-216-049-91	RES,CHIP	1K	5%	1/10W
R305	1-216-033-00	RES,CHIP	220	5%	1/10W
R306	1-216-025-91	RES,CHIP	100	5%	1/10W
R307	1-216-049-91	RES,CHIP	1K	5%	1/10W
R308	1-216-017-91	RES,CHIP	47	5%	1/10W
R309	1-216-017-91	RES,CHIP	47	5%	1/10W
R310	1-216-017-91	RES,CHIP	47	5%	1/10W
R311	1-216-295-91	CONDUCTOR, CHIP		0	
R314	1-216-033-00	RES,CHIP	220	5%	1/10W
R315	1-216-033-00	RES,CHIP	220	5%	1/10W
R319	1-216-033-00	RES,CHIP	220	5%	1/10W
R320	1-216-033-00	RES,CHIP	220	5%	1/10W
R321	1-216-395-00	METAL OXIDE	3.3	5%	3W
R322	1-216-077-00	RES,CHIP	15K	5%	1/10W
R323	1-216-025-91	RES,CHIP	100	5%	1/10W
R324	1-216-025-91	RES,CHIP	100	5%	1/10W
R325	1-216-025-91	RES,CHIP	100	5%	1/10W
R326	1-208-786-11	RES,CHIP	1.5K	0.50%	1/10W
R327	1-216-049-91	RES,CHIP	1K	5%	1/10W
R328	1-216-049-91	RES,CHIP	1K	5%	1/10W
R329	1-216-113-00	RES,CHIP	470K	5%	1/10W
R330	1-216-025-91	RES,CHIP	100	5%	1/10W
R331	1-216-025-91	RES,CHIP	100	5%	1/10W
R332	1-216-035-00	RES,CHIP	270	5%	1/10W
R333	1-208-810-11	RES,CHIP	15K	0.50%	1/10W
R334	1-216-043-91	RES,CHIP	560	5%	1/10W
R335	1-216-033-00	RES,CHIP	220	5%	1/10W
R337	1-216-033-00	RES,CHIP	220	5%	1/10W
R338	1-216-033-00	RES,CHIP	220	5%	1/10W
R339	1-216-033-00	RES,CHIP	220	5%	1/10W
R340	1-216-025-91	RES,CHIP	100	5%	1/10W
R342	1-216-025-91	RES,CHIP	100	5%	1/10W
R343	1-216-073-00	RES,CHIP	10K	5%	1/10W
R344	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R345	1-216-109-00	RES,CHIP	330K	5%	1/10W
R346	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R347	1-216-049-91	RES,CHIP	1K	5%	1/10W
R348	1-216-133-00	RES,CHIP	3.3M	5%	1/10W
R349	1-216-049-91	RES,CHIP	1K	5%	1/10W
R350	1-216-049-91	RES,CHIP	1K	5%	1/10W
R351	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R352	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R353	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R354	1-216-073-00	RES,CHIP	10K	5%	1/10W
R355	1-216-089-91	RES,CHIP	47K	5%	1/10W
R356	1-216-025-91	RES,CHIP	100	5%	1/10W
R357	1-216-049-91	RES,CHIP	1K	5%	1/10W
R361	1-216-041-00	RES,CHIP	470	5%	1/10W
R362	1-216-049-91	RES,CHIP	1K	5%	1/10W
R363	1-216-077-00	RES,CHIP	15K	5%	1/10W
R364	1-208-783-11	RES,CHIP	1.1K	0.50%	1/10W
R365	1-216-081-00	RES,CHIP	22K	5%	1/10W
R366	1-216-017-91	RES,CHIP	47	5%	1/10W
R367	1-216-083-00	RES,CHIP	27K	5%	1/10W
R368	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R369	1-216-073-00	RES,CHIP	10K	5%	1/10W
R370	1-216-083-00	RES,CHIP	27K	5%	1/10W
R371	1-216-077-00	RES,CHIP	15K	5%	1/10W
R372	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R373	1-216-079-00	RES,CHIP	18K	5%	1/10W
R374	1-216-049-91	RES,CHIP	1K	5%	1/10W
R375	1-216-113-00	RES,CHIP	470K	5%	1/10W
R376	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R377	1-216-073-00	RES,CHIP	10K	5%	1/10W
R378	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R379	1-216-073-00	RES,CHIP	10K	5%	1/10W
R380	1-216-089-91	RES,CHIP	47K	5%	1/10W
R381	1-216-097-91	RES,CHIP	100K	5%	1/10W
R386	1-216-295-91	CONDUCTOR, CHIP		0	
R402	1-249-389-11	CARBON	4.7	5%	1/4W F
R404	1-216-049-91	RES,CHIP	1K	5%	1/10W
R405	1-216-073-00	RES,CHIP	10K	5%	1/10W
R406	1-216-073-00	RES,CHIP	10K	5%	1/10W
R407	1-216-025-91	RES,CHIP	100	5%	1/10W
R408	1-216-025-91	RES,CHIP	100	5%	1/10W
R409	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R410	1-216-049-91	RES,CHIP	1K	5%	1/10W
R411	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R412	1-216-073-00	RES,CHIP	10K	5%	1/10W
R413	1-216-073-00	RES,CHIP	10K	5%	1/10W
R414	1-216-049-91	RES,CHIP	1K	5%	1/10W
R415	1-216-041-00	RES,CHIP	470	5%	1/10W
R416	1-249-389-11	CARBON	4.7	5%	1/4W F
R417	1-249-402-11	CARBON	56	5%	1/4W F
R418	1-216-073-00	RES,CHIP	10K	5%	1/10W
R419	1-216-689-11	RES,CHIP	39K	5%	1/10W
R420	1-216-049-91	RES,CHIP	1K	5%	1/10W
R421	1-216-073-00	RES,CHIP	10K	5%	1/10W
R423	1-216-079-00	RES,CHIP	18K	5%	1/10W
R426	1-260-324-11	CARBON	470	5%	1/2W
R428	1-216-033-00	RES,CHIP	220	5%	1/10W
R429	1-216-033-00	RES,CHIP	220	5%	1/10W
R430	1-216-295-91	CONDUCTOR, CHIP		0	
R431	1-216-295-91	CONDUCTOR, CHIP		0	
R432	1-216-081-00	RES,CHIP	22K	5%	1/10W
R433	1-216-081-00	RES,CHIP	22K	5%	1/10W
R434	1-216-073-00	RES,CHIP	10K	5%	1/10W
R437	1-216-073-00	RES,CHIP	10K	5%	1/10W
R438	1-216-079-00	RES,CHIP	18K	5%	1/10W
R439	1-216-073-00	RES,CHIP	10K	5%	1/10W
R441	1-216-089-91	RES,CHIP	47K	5%	1/10W
R442	1-216-041-00	RES,CHIP	470	5%	1/10W
R1101	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1102	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1103	1-216-689-11	RES,CHIP	39K	5%	1/10W
R1104	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1105	1-216-689-11	RES,CHIP	39K	5%	1/10W
R1106	1-216-083-00	RES,CHIP	27K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R1107	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1108	1-215-900-11	METAL OXIDE	22K	5%	2W
R1201	1-216-041-00	RES,CHIP	470	5%	1/10W
R1202	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1203	1-216-295-91	CONDUCTOR, CHIP		0	
R1204	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1205	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1206	1-216-025-91	RES,CHIP	100	5%	1/10W
R1207	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1208	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1209	1-216-025-91	RES,CHIP	100	5%	1/10W
R1210	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1211	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1212	1-216-033-00	RES,CHIP	220	5%	1/10W
R1213	1-216-025-91	RES,CHIP	100	5%	1/10W
R1214	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1215	1-216-025-91	RES,CHIP	100	5%	1/10W
R1216	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1217	1-216-041-00	RES,CHIP	470	5%	1/10W
R1218	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1220	1-216-025-91	RES,CHIP	100	5%	1/10W
R1221	1-216-025-91	RES,CHIP	100	5%	1/10W
R1223	1-216-033-00	RES,CHIP	220	5%	1/10W
R1225	1-216-025-91	RES,CHIP	100	5%	1/10W
R1226	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1227	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1228	1-216-025-91	RES,CHIP	100	5%	1/10W
R1229	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1230	1-216-025-91	RES,CHIP	100	5%	1/10W
R1231	1-216-025-91	RES,CHIP	100	5%	1/10W
R1232	1-216-025-91	RES,CHIP	100	5%	1/10W
R1233	1-216-041-00	RES,CHIP	470	5%	1/10W
R1234	1-216-025-91	RES,CHIP	100	5%	1/10W
R1235	1-216-025-91	RES,CHIP	100	5%	1/10W
R1236	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1237	1-216-025-91	RES,CHIP	100	5%	1/10W
R1238	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1239	1-216-025-91	RES,CHIP	100	5%	1/10W
R1240	1-216-025-91	RES,CHIP	100	5%	1/10W
R1241	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1242	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1243	1-216-025-91	RES,CHIP	100	5%	1/10W
R1244	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1245	1-216-025-91	RES,CHIP	100	5%	1/10W
R1251	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1501	1-216-351-00	METAL OXIDE	1.5	5%	1W
R1502	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R1504	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R1506	1-215-888-00	METAL OXIDE	220	5%	2W
R1507	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1508	1-249-383-11	CARBON	1.5	5%	1/4W
R1509	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R1510	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R1511	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1520	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1522	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1523	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1524	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1525	1-208-817-11	RES,CHIP	30K	0.50%	1/10W
R1526	1-208-817-11	RES,CHIP	30K	0.50%	1/10W
R1527	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1528	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1529	1-216-025-91	RES,CHIP	100	5%	1/10W
R2002	1-216-041-00	RES,CHIP	470	5%	1/10W
R2101	1-216-041-00	RES,CHIP	470	5%	1/10W
R2102	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2103	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2104	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2105	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2106	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2108	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2109	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2110	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2112	1-216-105-91	RES,CHIP	220K	5%	1/10W
R2113	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2114	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2115	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2117	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2118	1-216-025-91	RES,CHIP	100	5%	1/10W
R2201	1-216-077-00	RES,CHIP	15K	5%	1/10W
R2202	1-216-077-00	RES,CHIP	15K	5%	1/10W
R2203	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2204	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2205	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2206	1-208-831-11	RES,CHIP	110K	0.50%	1/10W
R2207	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R2208	1-208-797-11	RES,CHIP	4.3K	0.50%	1/10W
R2209	1-208-825-11	RES,CHIP	62K	0.50%	1/10W
R2210	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2211	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2212	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R2213	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2214	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2215	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2216	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2217	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2218	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2219	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2220	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2221	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2222	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2223	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2224	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2225	1-260-324-11	CARBON	470	5%	1/2W

<RELAY>

RY401	1-755-028-11	RELAY
RY402	1-755-028-11	RELAY

<TERMINAL BOARD>

TB201	1-694-303-11	TERMINAL, PUSH

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

• The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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REF. NO.		PART NO.	DESCRIPTION			REMARK
			<THERMISTOR>			
TH1501		1-800-193-00	THERMISTOR			
			<TUNER>			
TU1101		8-598-340-00	TUNER, FSS BTF-WA404			
TU1102		8-598-339-00	TUNER, FSS BTF-LA402			
			<CRYSTAL>			
X001		1-577-358-21	VIBRATOR, CERAMIC			
X002		1-578-774-11	VIBRATOR, CRYSTAL			
X301		1-567-505-11	OSCILLATOR, CRYSTAL			
X304		1-577-611-11	OSCILALTOR, CERAMIC			
**********						
	*	A-1316-419-A	G BOARD, COMPLETE			
			**********			
	*	4-039-590-01	SHIELD, TRANSFORMER			
	*	4-057-835-01	PLATE, TRANSFORMER SHIELD			
		4-382-854-11	SCREW (M3X10), P, SW (+)			
		4-382-854-51	SCREW (M3X8), P, SW (+)			
			<CAPACITOR>			
C502		1-126-959-11	ELECT	0.47µF	20%	50V
C504		1-102-116-00	CERAMIC	680PF	10%	50V
C505		1-130-471-00	MYLAR	0.001µF	5%	50V
C506		1-126-933-11	ELECT	100µF	20%	16V
C507		1-126-965-11	ELECT	22µF	20%	50V
C508		1-102-212-00	CERAMIC	820PF	10%	500V
C509		1-106-383-00	MYLAR	0.047µF	10%	200V
C510		1-102-002-00	CERAMIC	680PF	10%	500V
C511		1-130-475-00	MYLAR	0.0022µF	5%	50V
C512		1-136-479-11	FILM	0.001µF	5%	50V
C513		1-126-965-11	ELECT	22µF	20%	50V
⋈ C514	⚠		CERAMIC			2KV
C515	⚠	1-125-831-91	FILM	0.033µF	3%	630V
C516	⚠	1-117-807-11	FILM	14500PF	3%	1.6KV
C518		1-130-495-00	MYLAR	0.1µF	5%	50V
C519		1-136-287-11	FILM	0.0047µF	5%	100V
C520		1-162-116-00	CERAMIC	680PF	10%	2KV
C521		1-162-116-00	CERAMIC	680PF	10%	2KV
C523		1-117-673-11	FILM	1.5µF	5%	200V
C524		1-136-287-11	FILM	0.0047µF	5%	100V
C526		1-102-228-00	CERAMIC	470PF	10%	500V
C527		1-104-664-11	ELECT	47µF	20%	25V
C528		1-107-649-11	ELECT	2.2µF	20%	250V
C529		1-109-961-11	FILM	0.75µF	5%	200V
C530		1-110-626-11	ELECT	330µF	20%	160V
C531		1-126-971-11	ELECT	470µF	20%	50V
C532		1-126-971-11	ELECT	470µF	20%	50V
C533		1-128-562-11	ELECT	47µF	20%	100V
C535		1-106-387-00	MYLAR	0.068µF	5%	200V
C536		1-130-489-00	MYLAR	0.033µF	5%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C537	1-104-665-11	ELECT	100µF	20%	25V
C538	1-104-665-11	ELECT	100µF	20%	25V
C539	1-162-114-00	CERAMIC	0.0047µF		2KV
C540	1-130-487-00	MYLAR	0.022µF	5%	50V
C541	1-130-489-00	MYLAR	0.033µF	5%	50V
C542	1-104-666-11	ELECT	220µF	20%	25V
C544	1-104-665-11	ELECT	100µF	20%	25V
C545	1-104-665-11	ELECT	100µF	20%	25V
C546	1-107-637-11	ELECT	22µF	20%	160V
C548	1-102-244-00	CERAMIC	220PF	10%	500V
C550	1-126-935-11	ELECT	470µF	20%	16V
C551	1-126-935-11	ELECT	470µF	20%	16V
C554	1-129-702-00	FILM	0.001µF	5%	630V
C555	1-126-960-11	ELECT	1µF	20%	50V
C556	1-130-495-00	MYLAR	0.1µF	5%	50V
C603	1-104-330-91	CERAMIC	470PF	10%	1KV
C604	1-126-971-11	ELECT	470µF	20%	50V
C605	1-113-907-51	CERAMIC	0.0022µF	20%	250V
C606	1-113-907-51	CERAMIC	0.0022µF	20%	250V
C607	1-125-692-11	ELECT(BLOCK)	820µF	20%	200V
C608	1-125-692-11	ELECT(BLOCK)	820µF	20%	200V
C612	1-164-646-11	CERAMIC	2200PF	10%	500V
C615	1-136-173-00	FILM	0.47µF	5%	50V
C616	1-136-173-00	FILM	0.47µF	5%	50V
C617	1-136-169-00	FILM	0.22µF	5%	50V
C618	1-136-169-00	FILM	0.22µF	5%	50V
C621	1-129-719-00	FILM	0.027µF	5%	630V
C651	1-107-910-11	ELECT	100µF	20%	35V
C652	1-123-024-21	ELECT	33µF		160V
C653	1-115-755-11	ELECT	180µF	20%	16V
C654	1-115-755-11	ELECT	180µF	20%	16V
C655	1-126-943-11	ELECT	2200µF	20%	25V
C656	1-126-943-11	ELECT	2200µF	20%	25V
C657	1-126-943-11	ELECT	2200µF	20%	25V
C658	1-128-550-11	ELECT	2200µF	20%	50V
C659	1-102-074-00	CERAMIC	0.001µF	10%	50V
C660	1-126-235-11	ELECT	100µF	20%	6.3V
C661	1-102-074-00	CERAMIC	0.001µF	10%	50V
C662	1-104-664-11	ELECT	47µF	20%	25V
C663	1-104-664-11	ELECT	47µF	20%	25V
C664	1-104-664-11	ELECT	47µF	20%	25V
C665	1-104-666-11	ELECT	220µF	20%	25V
C666	1-126-960-11	ELECT	1µF	20%	50V
C667	1-104-664-11	ELECT	47µF	20%	25V
C668	1-126-933-11	ELECT	100µF	20%	16V
C671	1-126-935-11	ELECT	470µF	20%	16V
C673	1-162-115-00	CERAMIC	330PF	10%	1KV
C675	1-104-665-11	ELECT	100µF	20%	25V
C676	1-126-960-11	ELECT	1µF	20%	50V
C801	1-104-665-11	ELECT	100µF	20%	25V
C802	1-104-665-11	ELECT	100µF	20%	25V
C803	1-126-934-11	ELECT	220µF	20%	16V
C804	1-126-934-11	ELECT	220µF	20%	16V
C805	1-126-934-11	ELECT	220µF	20%	16V
C806	1-126-934-11	ELECT	220µF	20%	16V
C807	1-137-374-11	FILM	0.047µF	5%	50V
C808	1-137-374-11	FILM	0.047µF	5%	50V

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
C809	1-137-374-11	FILM	0.047µF	5%	50V
C810	1-137-374-11	FILM	0.047µF	5%	50V
C811	1-137-366-11	FILM	0.0022µF	5%	50V
C812	1-136-169-00	FILM	0.22µF	5%	50V
C813	1-137-374-11	FILM	0.047µF	5%	50V
C815	1-126-941-11	ELECT	470µF	20%	25V
C816	1-126-964-11	ELECT	10µF	20%	50V
C817	1-164-096-11	CERAMIC	0.01µF		50V
C818	1-126-933-11	ELECT	100µF	20%	16V
C819	1-126-964-11	ELECT	10µF	20%	50V
C820	1-102-114-00	CERAMIC	470PF	10%	50V
C821	1-130-495-00	MYLAR	0.1µF	5%	50V
C822	1-164-096-11	CERAMIC	0.01µF		50V
C823	1-101-880-00	CERAMIC	47PF	5%	50V
C825	1-104-665-11	ELECT	100µF	20%	25V
C826	1-136-165-00	FILM	0.1µF	5%	50V
C827	1-126-960-11	ELECT	1µF	20%	50V
C828	1-137-366-11	FILM	0.0022µF	5%	50V
C829	1-126-959-11	ELECT	0.47µF	20%	50V
C830	1-136-356-11	FILM	470PF	5%	50V
C831	1-126-960-11	ELECT	1µF	20%	50V
C832	1-126-960-11	ELECT	1µF	20%	50V
C833	1-126-960-11	ELECT	1µF	20%	50V
C834	1-104-665-11	ELECT	100µF	20%	25V
C836	1-136-169-00	FILM	0.22µF	5%	50V
C837	1-126-963-11	ELECT	4.7µF	20%	50V
C838	1-104-665-11	ELECT	100µF	20%	25V
C839	1-137-374-11	FILM	0.047µF	5%	50V
C840	1-104-665-11	ELECT	100µF	20%	25V
C841	1-137-374-11	FILM	0.047µF	5%	50V
C842	1-137-374-11	FILM	0.047µF	5%	50V
C843	1-104-665-11	ELECT	100µF	20%	25V
C844	1-126-933-11	ELECT	100µF	20%	16V
C845	1-126-933-11	ELECT	100µF	20%	16V
C846	1-126-933-11	ELECT	100µF	20%	16V
C847	1-126-933-11	ELECT	100µF	20%	16V
C848	1-126-933-11	ELECT	100µF	20%	16V
C851	1-137-374-11	FILM	0.047µF	5%	50V
C852	1-137-374-11	FILM	0.047µF	5%	50V
C853	1-137-374-11	FILM	0.047µF	5%	50V
C854	1-126-933-11	ELECT	100µF	20%	16V
C856	1-164-096-11	CERAMIC	0.01µF		50V
C857	1-126-933-11	ELECT	100µF	20%	16V
C858	1-126-941-11	ELECT	470µF	20%	25V
C860	1-126-933-11	ELECT	100µF	20%	16V
C861	1-137-374-11	FILM	0.047µF	5%	50V
C862	1-137-374-11	FILM	0.047µF	5%	50V
C863	1-137-374-11	FILM	0.047µF	5%	50V
C864	1-126-933-11	ELECT	100µF	20%	16V
C865	1-130-471-00	MYLAR	0.001µF	5%	50V
C866	1-136-177-00	FILM	1µF	5%	50V
C867	1-101-880-00	CERAMIC	47PF	5%	50V
C868	1-101-880-00	CERAMIC	47PF	5%	50V
C869	1-130-487-00	MYLAR	0.022µF	5%	50V
C870	1-164-096-11	CERAMIC	0.01µF		50V
C871	1-101-880-00	CERAMIC	47PF	5%	50V
C872	1-101-880-00	CERAMIC	47PF	5%	50V
C873	1-101-880-00	CERAMIC	47PF	5%	50V
C880	1-126-961-11	ELECT	2.2µF	20%	50V
C881	1-102-973-00	CERAMIC	100PF	5%	50V
C882	1-102-973-00	CERAMIC	100PF	5%	50V
C883	1-102-973-00	CERAMIC	100PF	5%	50V
C885	1-126-961-11	ELECT	2.2µF	20%	50V
C886	1-102-973-00	CERAMIC	100PF	5%	50V
C887	1-102-973-00	CERAMIC	100PF	5%	50V
C888	1-102-973-00	CERAMIC	100PF	5%	50V
C889	1-126-941-11	ELECT	470µF	20%	25V
C897	1-126-941-11	ELECT	470µF	20%	25V

<CONNECTOR>

CN501	1-564-513-11	PLUG, CONNECTOR 10P
CN502 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN503 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN504 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN505 *	1-506-371-00	PIN, CONNECTOR 2P
CN506 *	1-774-182-11	CONNECTOR, BOARD TO BOARD10P
CN507 *	1-564-507-11	PLUG, CONNECTOR 4P
CN601 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN602	1-695-915-11	TAB (CONTACT)
CN651 *	1-774-182-11	CONNECTOR, BOARD TO BOARD10P
CN652 *	1-774-182-11	CONNECTOR, BOARD TO BOARD10P
CN653 *	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN801 *	1-564-507-11	PLUG, CONNECTOR 4P
CN802 *	1-564-507-11	PLUG, CONNECTOR 4P
CN803 *	1-564-507-11	PLUG, CONNECTOR 4P
CN804 *	1-774-182-11	CONNECTOR, BOARD TO BOARD10P
CN805 *	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P

<DIODE>

D501	8-719-991-33	DIODE 1SS133T-77
D502	8-719-991-33	DIODE 1SS133T-77
D503	8-719-018-82	DIODE RGP02-20EL-6394
D504	8-719-921-63	DIODE MTZJ-7.5B
D507	8-719-302-43	DIODE EL1Z
D508	8-719-900-26	DIODE ERD29-08J
D509	8-719-945-80	DIODE ERC06-15S
D510	8-719-945-80	DIODE ERC06-15S
D511	8-719-302-43	DIODE EL1Z
D513	8-719-302-43	DIODE EL1Z
D514	8-719-908-03	DIODE GP08D
D515	8-719-908-03	DIODE GP08D
D517	8-719-018-82	DIODE RGP02-20EL-6394
D519	8-719-991-33	DIODE 1SS133T-77
D520	8-719-302-43	DIODE EL1Z
D521	8-719-302-43	DIODE EL1Z
D524	8-719-991-33	DIODE 1SS133T-77
D527	8-719-109-85	DIODE RD5.1ESB2
D528	8-719-923-86	DIODE MTZJ-T-77-15
D601	8-719-200-82	DIODE 11ES2
D602 ⚠	8-719-052-84	DIODE LN4SB60
D603	8-719-200-82	DIODE 11ES2
D604	8-719-110-22	DIODE RD11ESB2

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	REMARK
D605	8-719-923-83	DIODE MTZJ-T-77-13A	
D651	8-719-510-26	DIODE D1NL20-TA	
D652	8-719-991-33	DIODE 1SS133T-77	
D653	8-719-510-02	DIODE D1NS4	
D654	8-719-022-97	DIODE D2S4µF	
D655	8-719-061-56	DIODE RBA-402LLF-A	
D656	8-719-052-92	DIODE D10SBS4F	
D657	8-719-052-91	DIODE D4SBS4-F	
D658	8-719-510-12	DIODE D10SC4M	
D660	8-719-991-33	DIODE 1SS133T-77	
D661	8-719-200-82	DIODE 11ES2	
D662	8-719-991-33	DIODE 1SS133T-77	
D664	8-719-110-61	DIODE RD24ESB1	
D669	8-719-991-33	DIODE 1SS133T-77	
D670	8-719-923-86	DIODE MTZJ-T-77-15	
D691	8-719-200-82	DIODE 11ES2	
D692	8-719-200-82	DIODE 11ES2	
D801	8-719-110-17	DIODE RD10ESB2	
D802	8-719-110-17	DIODE RD10ESB2	
D803	8-719-110-17	DIODE RD10ESB2	
D804	8-719-110-17	DIODE RD10ESB2	
D809	8-719-991-33	DIODE 1SS133T-77	
D810	8-719-991-33	DIODE 1SS133T-77	
D820	8-719-109-68	DIODE RD3.6ESB1	
D828	8-719-109-89	DIODE RD5.6ESB2	
D829	8-719-109-85	DIODE RD5.1ESB2	
D835	8-719-109-89	DIODE RD5.6ESB2	
D840	8-719-991-33	DIODE 1SS133T-77	
D842	8-719-991-33	DIODE 1SS133T-77	
D845	8-719-991-33	DIODE 1SS133T-77	
D846	8-719-991-33	DIODE 1SS133T-77	
D847	8-719-982-19	DIODE MTZJ-30A	
D848	8-719-923-86	DIODE MTZJ-T-77-15	
D849	8-719-110-22	DIODE RD11ESB2	
D850	8-719-109-89	DIODE RD5.6ESB2	
D852	8-719-923-86	DIODE MTZJ-T-77-15	
D853	8-719-982-19	DIODE MTZJ-30A	
D854	8-719-982-19	DIODE MTZJ-30A	
D855	8-719-982-19	DIODE MTZJ-30A	
D857	8-719-982-19	DIODE MTZJ-30A	
D860	8-719-982-19	DIODE MTZJ-30A	
		<FERRITE BEAD>	
FB501	1-410-397-21	FERRITE 1.1µH	
FB651	1-410-396-41	FERRITE 0.45µH	
FB652	1-410-396-41	FERRITE 0.45µH	
FB653	1-410-396-41	FERRITE 0.45µH	
FB654	1-410-397-21	FERRITE 1.1µH	
FB655	1-410-396-41	FERRITE 0.45µH	
FB656	1-410-396-41	FERRITE 0.45µH	
FB657	1-410-396-41	FERRITE 0.45µH	
FB660	1-412-761-11	FERRITE 0µH	
FB661	1-412-761-11	FERRITE 0µH	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC501	8-759-133-90	IC UPC339C	
IC601 ⚠	8-729-041-12	TRANSISTOR MX0841AB-F	
IC651 ⚠	8-749-012-13	IC DM-58	
IC652	8-759-012-67	IC MC7905CT	
IC653	8-759-231-53	IC TA7805S	
IC654	8-759-231-53	IC TA7805S	
IC801	8-759-327-51	IC PA0053B	
IC802	8-759-327-51	IC PA0053B	
IC803	8-759-183-37	IC CA0007AD	
IC804	8-759-464-79	IC PM0011AS	
IC805	8-759-711-28	IC NJM2058D	
IC806	8-759-464-79	IC PM0011AS	
IC808	8-759-464-79	IC PM0011AS	
IC809	8-749-014-37	IC STK392-150	
IC810	8-749-014-37	IC STK392-150	
IC811	8-759-634-51	IC M5218AP	
		<COIL>	
L502	1-410-478-11	INDUCTOR 47µH	
L503	1-459-111-00	INDUCTOR 0µH	
L506	1-412-552-11	INDUCTOR 2.2mmH	
L509	1-412-533-21	INDUCTOR 47µH	
L651	1-414-158-11	INDUCTOR 2.2µH	
L652	1-414-158-11	INDUCTOR 2.2µH	
L653	1-414-158-11	INDUCTOR 2.2µH	
L654	1-414-158-11	INDUCTOR 2.2µH	
L656	1-412-523-11	INDUCTOR 6.8µH	
L801	1-406-975-21	INDUCTOR 0µH	
L802	1-406-975-21	INDUCTOR 0µH	
		<NEON LAMP>	
NL501	1-517-778-21	LAMP, NEON	
NL502	1-517-778-21	LAMP, NEON	
NL503	1-517-778-21	LAMP, NEON	
NL504	1-517-778-21	LAMP, NEON	
NL505	1-517-778-21	LAMP, NEON	
		<IC LINK>	
PS601 ⚠	1-533-597-31	LINK, IC	
PS602 ⚠	1-533-597-31	LINK, IC	
		<TRANSISTOR>	
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q502	8-729-024-05	TRANSISTOR 2SD2348(LBSONY-1)	
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q504	8-729-823-81	TRANSISTOR 2SC4632LS-CB7	
Q505	8-729-931-45	TRANSISTOR IRF614	
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q507	8-729-032-61	TRANSISTOR 2SC5022-02	
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q602	8-729-209-15	TRANSISTOR 2SD2012	
Q651	8-729-119-76	TRANSISTOR 2SA1175-HFE	

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• The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.		PART NO.	DESCRIPTION			REMARK
Q652		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q653		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q654		8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q655		8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q656		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q657		8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q658		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q659		8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q660		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q661		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q662		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q802		8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q803		8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q804		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q805		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q809		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q810		8-729-119-78	TRANSISTOR 2SC2785-HFE			
			<RESISTOR>			
R501		1-249-421-11	CARBON	2.2K	5%	1/4W
R502		1-215-879-11	METAL OXIDE	47K	5%	1W
R503		1-247-843-11	CARBON	3.3K	5%	1/4W
R504		1-249-419-11	CARBON	1.5K	5%	1/4W
R505		1-247-895-91	CARBON	470K	5%	1/4W
R506		1-249-429-11	CARBON	10K	5%	1/4W
R507		1-249-422-11	CARBON	2.7K	5%	1/4W
R508		1-260-337-11	CARBON	5.6K	5%	1/2W
R509		1-249-437-11	CARBON	47K	5%	1/4W
R510		1-215-919-11	METAL OXIDE	2.2K	5%	3W
R511		1-215-919-11	METAL OXIDE	2.2K	5%	3W
R512		1-216-482-11	METAL OXIDE	1.8K	5%	3W
R513		1-249-424-11	CARBON	3.9K	5%	1/4W
⋈ R514	⚠		METAL			1/4W
R516		1-215-443-00	METAL	8.2K	1%	1/4W
R517		1-215-449-00	METAL	15K	1%	1/4W
R518		1-215-456-00	METAL	30K	1%	1/4W
R519		1-247-863-91	CARBON	22K	5%	1/4W
R522		1-249-428-11	CARBON	8.2K	5%	1/4W
R523		1-249-437-11	CARBON	47K	5%	1/4W
R524		1-247-863-91	CARBON	22K	5%	1/4W
R525		1-249-405-11	CARBON	100	5%	1/4W
R528		1-215-910-00	METAL OXIDE	68	5%	3W
R530		1-249-437-11	CARBON	47K	5%	1/4W
R531		1-215-868-00	METAL OXIDE	680	5%	1W
R532		1-260-314-11	CARBON	68	5%	1/2W
R533		1-214-912-00	METAL	91K	1%	1/2W
R534		1-215-479-00	METAL	270K	1%	1/4W
R535		1-247-887-00	CARBON	220K	5%	1/4W
R536		1-260-288-11	CARBON	0.47	5%	1/2W
R537		1-260-336-11	CARBON	4.7K	5%	1/2W
R538		1-247-863-91	CARBON	22K	5%	1/4W
R539		1-249-377-11	CARBON	0.47	5%	1/4W
R540		1-249-377-11	CARBON	0.47	5%	1/4W
R541		1-260-087-11	CARBON	100	5%	1/2W
R542		1-215-864-00	METAL OXIDE	150	5%	1W
R543		1-216-349-00	METAL OXIDE	1	5%	1W
R544		1-215-864-00	METAL OXIDE	150	5%	1W
R545		1-249-377-11	CARBON	0.47	5%	1/4W
R546		1-249-377-11	CARBON	0.47	5%	1/4W
R547		1-247-807-31	CARBON	100	5%	1/4W
R548		1-249-413-11	CARBON	470	5%	1/4W
R549		1-247-863-91	CARBON	22K	5%	1/4W
R550		1-247-807-31	CARBON	100	5%	1/4W
R551		1-249-437-11	CARBON	47K	5%	1/4W
R552		1-247-807-31	CARBON	100	5%	1/4W
R553		1-247-881-00	CARBON	120K	5%	1/4W
R554		1-249-405-11	CARBON	100	5%	1/4W
R556		1-260-117-11	CARBON	33K	5%	1/2W
R557		1-216-490-11	METAL OXIDE	39K	5%	3W
R558		1-216-490-11	METAL OXIDE	39K	5%	3W
R559		1-216-490-11	METAL OXIDE	39K	5%	3W
R560		1-215-399-00	METAL	120	1%	1/4W
⋈ R561	⚠		METAL			1/4W
R563		1-249-429-11	CARBON	10K	5%	1/4W
R564		1-260-131-11	CARBON	470K	5%	1/2W
R565		1-260-087-11	CARBON	100	5%	1/2W
R566		1-249-377-11	CARBON	0.47	5%	1/4W
R567		1-249-377-11	CARBON	0.47	5%	1/4W
R568		1-247-903-00	CARBON	1M	5%	1/4W
R569		1-216-389-11	METAL OXIDE	1	5%	3W
R570		1-215-910-00	METAL OXIDE	68	5%	3W
R571		1-249-422-11	CARBON	2.7K	5%	1/4W
R572		1-247-895-91	CARBON	470K	5%	1/4W
R573		1-249-430-11	CARBON	12K	5%	1/4W
R574		1-249-429-11	CARBON	10K	5%	1/4W
R577		1-249-422-11	CARBON	2.7K	5%	1/4W
R579		1-247-895-91	CARBON	470K	5%	1/4W
R580		1-247-863-91	CARBON	22K	5%	1/4W
R581		1-249-428-11	CARBON	8.2K	5%	1/4W
R583		1-249-428-11	CARBON	8.2K	5%	1/4W
R584		1-247-887-00	CARBON	220K	5%	1/4W
R585		1-216-490-11	METAL OXIDE	39K	5%	3W
R586		1-260-292-11	CARBON	1	5%	1/2W
R588		1-247-863-91	CARBON	22K	5%	1/4W
R589		1-247-887-00	CARBON	220K	5%	1/4W
R591		1-215-917-11	METAL OXIDE	1K	5%	3W
R608	⚠	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R609		1-247-887-00	CARBON	220K	5%	1/4W
R610		1-247-887-00	CARBON	220K	5%	1/4W
R611		1-216-353-00	METAL OXIDE	2.2	5%	1W
R612		1-247-887-00	CARBON	220K	5%	1/4W
R613		1-216-353-00	METAL OXIDE	2.2	5%	1W
R614		1-247-887-00	CARBON	220K	5%	1/4W
R615		1-249-425-11	CARBON	4.7K	5%	1/4W
R616		1-249-421-11	CARBON	2.2K	5%	1/4W
R617		1-249-421-11	CARBON	2.2K	5%	1/4W
R618		1-249-389-11	CARBON	4.7	5%	1/4W
R651		1-249-429-11	CARBON	10K	5%	1/4W
R653		1-249-377-11	CARBON	0.47	5%	1/4W
R655		1-247-887-00	CARBON	220K	5%	1/4W
R656		1-260-288-11	CARBON	0.47	5%	1/2W
R657		1-249-429-11	CARBON	10K	5%	1/4W
R658		1-249-417-11	CARBON	1K	5%	1/4W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R660	1-249-413-11	CARBON	470	5%	1/4W
R661	1-249-417-11	CARBON	1K	5%	1/4W
R662	1-249-425-11	CARBON	4.7K	5%	1/4W
R664	1-249-425-11	CARBON	4.7K	5%	1/4W
R665	1-247-807-31	CARBON	100	5%	1/4W
R667	1-249-417-11	CARBON	1K	5%	1/4W
R668	1-249-377-11	CARBON	0.47	5%	1/4W
R669	1-249-429-11	CARBON	10K	5%	1/4W
R672	1-249-421-11	CARBON	2.2K	5%	1/4W
R673	1-249-413-11	CARBON	470	5%	1/4W
R675	1-215-417-00	METAL	680	1%	1/4W
R676	1-216-369-00	METAL OXIDE	1	5%	2W
R677	1-247-807-31	CARBON	100	5%	1/4W
R679	1-249-421-11	CARBON	2.2K	5%	1/4W
R680	1-249-417-11	CARBON	1K	5%	1/4W
R681	1-249-417-11	CARBON	1K	5%	1/4W
R682	1-249-417-11	CARBON	1K	5%	1/4W
R683	1-249-417-11	CARBON	1K	5%	1/4W
R684	1-249-417-11	CARBON	1K	5%	1/4W
R686	1-215-421-00	METAL	1K	1%	1/4W
R687	1-215-441-00	METAL	6.8K	1%	1/4W
R688	1-215-481-00	METAL	330K	1%	1/4W
R689	1-249-425-11	CARBON	4.7K	5%	1/4W
R690	1-249-417-11	CARBON	1K	5%	1/4W
R692	1-249-425-11	CARBON	4.7K	5%	1/4W
R693	1-249-429-11	CARBON	10K	5%	1/4W
R695	1-247-807-31	CARBON	100	5%	1/4W
R696	1-249-417-11	CARBON	1K	5%	1/4W
R697	1-249-417-11	CARBON	1K	5%	1/4W
R801	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-430-11	CARBON	12K	5%	1/4W
R804	1-249-429-11	CARBON	10K	5%	1/4W
R805	1-247-807-31	CARBON	100	5%	1/4W
R806	1-249-429-11	CARBON	10K	5%	1/4W
R807	1-247-807-31	CARBON	100	5%	1/4W
R808	1-249-429-11	CARBON	10K	5%	1/4W
R809	1-249-425-11	CARBON	4.7K	5%	1/4W
R810	1-247-807-31	CARBON	100	5%	1/4W
R811	1-247-807-31	CARBON	100	5%	1/4W
R812	1-249-429-11	CARBON	10K	5%	1/4W
R813	1-249-429-11	CARBON	10K	5%	1/4W
R814	1-247-807-31	CARBON	100	5%	1/4W
R815	1-247-807-31	CARBON	100	5%	1/4W
R816	1-247-807-31	CARBON	100	5%	1/4W
R817	1-247-807-31	CARBON	100	5%	1/4W
R818	1-249-430-11	CARBON	12K	5%	1/4W
R820	1-249-429-11	CARBON	10K	5%	1/4W
R821	1-249-428-11	CARBON	8.2K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R823	1-249-417-11	CARBON	1K	5%	1/4W
R824	1-215-462-00	METAL	51K	1%	1/4W
R825	1-249-441-11	CARBON	100K	5%	1/4W
R826	1-215-462-00	METAL	51K	1%	1/4W
R827	1-249-417-11	CARBON	1K	5%	1/4W
R828	1-249-426-11	CARBON	5.6K	5%	1/4W
R829	1-249-426-11	CARBON	5.6K	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R830	1-249-414-11	CARBON	560	5%	1/4W
R831	1-249-414-11	CARBON	560	5%	1/4W
R832	1-249-441-11	CARBON	100K	5%	1/4W
R833	1-249-417-11	CARBON	1K	5%	1/4W
R834	1-249-441-11	CARBON	100K	5%	1/4W
R835	1-249-441-11	CARBON	100K	5%	1/4W
R836	1-247-807-31	CARBON	100	5%	1/4W
R837	1-249-441-11	CARBON	100K	5%	1/4W
R838	1-249-421-11	CARBON	2.2K	5%	1/4W
R841	1-247-815-91	CARBON	220	5%	1/4W
R842	1-247-807-31	CARBON	100	5%	1/4W
R843	1-247-807-31	CARBON	100	5%	1/4W
R844	1-247-807-31	CARBON	100	5%	1/4W
R845	1-249-441-11	CARBON	100K	5%	1/4W
R846	1-247-807-31	CARBON	100	5%	1/4W
R847	1-215-469-00	METAL	100K	1%	1/4W
R850	1-215-469-00	METAL	100K	1%	1/4W
R851	1-247-807-31	CARBON	100	5%	1/4W
R852	1-247-807-31	CARBON	100	5%	1/4W
R853	1-247-887-00	CARBON	220K	5%	1/4W
R854	1-249-429-11	CARBON	10K	5%	1/4W
R855	1-247-815-91	CARBON	220	5%	1/4W
R856	1-247-807-31	CARBON	100	5%	1/4W
R857	1-247-807-31	CARBON	100	5%	1/4W
R858	1-215-455-00	METAL	27K	1%	1/4W
R859	1-215-455-00	METAL	27K	1%	1/4W
R860	1-215-455-00	METAL	27K	1%	1/4W
R861	1-215-455-00	METAL	27K	1%	1/4W
R862	1-215-455-00	METAL	27K	1%	1/4W
R863	1-215-455-00	METAL	27K	1%	1/4W
R865	1-249-424-11	CARBON	3.9K	5%	1/4W
R867	1-215-461-00	METAL	47K	1%	1/4W
R868	1-215-445-00	METAL	10K	1%	1/4W
R869	1-249-425-11	CARBON	4.7K	5%	1/4W
R871	1-249-417-11	CARBON	1K	5%	1/4W
R872	1-249-425-11	CARBON	4.7K	5%	1/4W
R873	1-247-807-31	CARBON	100	5%	1/4W
R874	1-249-429-11	CARBON	10K	5%	1/4W
R875	1-249-441-11	CARBON	100K	5%	1/4W
R876	1-215-451-00	METAL	18K	1%	1/4W
R879	1-215-444-00	METAL	9.1K	1%	1/4W
R881	1-249-408-11	CARBON	180	5%	1/4W
R882	1-215-445-00	METAL	10K	1%	1/4W
R883	1-215-445-00	METAL	10K	1%	1/4W
R884	1-215-445-00	METAL	10K	1%	1/4W
R885	1-249-441-11	CARBON	100K	5%	1/4W
R886	1-249-428-11	CARBON	8.2K	5%	1/4W
R887	1-247-807-31	CARBON	100	5%	1/4W
R888	1-247-807-31	CARBON	100	5%	1/4W
R889	1-249-438-11	CARBON	56K	5%	1/4W
R890	1-249-441-11	CARBON	100K	5%	1/4W
R891	1-249-429-11	CARBON	10K	5%	1/4W
R892	1-215-445-00	METAL	10K	1%	1/4W
R895	1-249-421-11	CARBON	2.2K	5%	1/4W
R896	1-249-441-11	CARBON	100K	5%	1/4W
R897	1-247-807-31	CARBON	100	5%	1/4W
R898	1-247-815-91	CARBON	220	5%	1/4W

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Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R899	1-247-815-91	CARBON	220	5%	1/4W
R901	1-249-430-11	CARBON	12K	5%	1/4W
R902	1-249-438-11	CARBON	56K	5%	1/4W
R903	1-215-421-00	METAL	1K	1%	1/4W
R904	1-214-800-11	METAL	2.2	1%	1/2W
R905	1-214-800-11	METAL	2.2	1%	1/2W
R906	1-214-800-11	METAL	2.2	1%	1/2W
R907	1-247-815-91	CARBON	220	5%	1/4W
R908	1-247-815-91	CARBON	220	5%	1/4W
R909	1-215-421-00	METAL	1K	1%	1/4W
R910	1-215-421-00	METAL	1K	1%	1/4W
R911	1-215-455-00	METAL	27K	1%	1/4W
R912	1-215-469-00	METAL	100K	1%	1/4W
R913	1-215-455-00	METAL	27K	1%	1/4W
R914	1-215-455-00	METAL	27K	1%	1/4W
R915	1-215-455-00	METAL	27K	1%	1/4W
R916	1-215-455-00	METAL	27K	1%	1/4W
R917	1-215-455-00	METAL	27K	1%	1/4W
R918	1-215-455-00	METAL	27K	1%	1/4W
R919	1-249-435-11	CARBON	33K	5%	1/4W
R920	1-214-800-11	METAL	2.2	1%	1/2W
R921	1-249-429-11	CARBON	10K	5%	1/4W
R922	1-215-445-00	METAL	10K	1%	1/4W
R923	1-249-425-11	CARBON	4.7K	5%	1/4W
R924	1-215-444-00	METAL	9.1K	1%	1/4W
R925	1-249-425-11	CARBON	4.7K	5%	1/4W
R926	1-249-408-11	CARBON	180	5%	1/4W
R927	1-215-445-00	METAL	10K	1%	1/4W
R928	1-215-445-00	METAL	10K	1%	1/4W
R929	1-214-800-11	METAL	2.2	1%	1/2W
R930	1-214-800-11	METAL	2.2	1%	1/2W
R931	1-215-445-00	METAL	10K	1%	1/4W
R933	1-215-453-00	METAL	22K	1%	1/4W
R934	1-249-429-11	CARBON	10K	5%	1/4W
R935	1-249-429-11	CARBON	10K	5%	1/4W
R936	1-249-429-11	CARBON	10K	5%	1/4W
R937	1-249-435-11	CARBON	33K	5%	1/4W
R938	1-215-421-00	METAL	1K	1%	1/4W
R940	1-249-441-11	CARBON	100K	5%	1/4W
R941	1-249-441-11	CARBON	100K	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-441-11	CARBON	100K	5%	1/4W
R944	1-215-421-00	METAL	1K	1%	1/4W
R945	1-249-429-11	CARBON	10K	5%	1/4W
R946	1-215-421-00	METAL	1K	1%	1/4W
R947	1-249-441-11	CARBON	100K	5%	1/4W
R948	1-247-815-91	CARBON	220	5%	1/4W
R949	1-247-807-31	CARBON	100	5%	1/4W
R950	1-247-807-31	CARBON	100	5%	1/4W
R951	1-247-807-31	CARBON	100	5%	1/4W
R952	1-247-807-31	CARBON	100	5%	1/4W
R953	1-247-863-91	CARBON	22K	5%	1/4W
R954	1-215-433-00	METAL	3.3K	1%	1/4W
R955	1-215-433-00	METAL	3.3K	1%	1/4W
R956	1-249-429-11	CARBON	10K	5%	1/4W
R957	1-214-800-11	METAL	2.2	1%	1/2W
R958	1-214-800-11	METAL	2.2	1%	1/2W
R959	1-215-433-00	METAL	3.3K	1%	1/4W
R960	1-215-451-00	METAL	18K	1%	1/4W
R961	1-249-425-11	CARBON	4.7K	5%	1/4W
R962	1-214-800-11	METAL	2.2	1%	1/2W
R963	1-214-800-11	METAL	2.2	1%	1/2W
R964	1-215-433-00	METAL	3.3K	1%	1/4W
R965	1-215-433-00	METAL	3.3K	1%	1/4W
R966	1-247-815-91	CARBON	220	5%	1/4W
R967	1-215-455-00	METAL	27K	1%	1/4W
R968	1-215-455-00	METAL	27K	1%	1/4W
R969	1-215-455-00	METAL	27K	1%	1/4W
R970	1-215-455-00	METAL	27K	1%	1/4W
R971	1-215-455-00	METAL	27K	1%	1/4W
R972	1-215-455-00	METAL	27K	1%	1/4W
R973	1-214-800-11	METAL	2.2	1%	1/2W
R974	1-215-463-00	METAL	56K	1%	1/4W
R975	1-214-800-11	METAL	2.2	1%	1/2W
R976	1-215-433-00	METAL	3.3K	1%	1/4W
R977	1-247-815-91	CARBON	220	5%	1/4W
R978	1-215-445-00	METAL	10K	1%	1/4W
R979	1-249-425-11	CARBON	4.7K	5%	1/4W
R980	1-247-815-91	CARBON	220	5%	1/4W
R981	1-247-815-91	CARBON	220	5%	1/4W
R983	1-247-815-91	CARBON	220	5%	1/4W
R984	1-215-444-00	METAL	9.1K	1%	1/4W
R985	1-215-445-00	METAL	10K	1%	1/4W
R986	1-215-451-00	METAL	18K	1%	1/4W
R987	1-249-408-11	CARBON	180	5%	1/4W
R988	1-215-445-00	METAL	10K	1%	1/4W
R989	1-249-425-11	CARBON	4.7K	5%	1/4W
R990	1-249-429-11	CARBON	10K	5%	1/4W
R991	1-249-429-11	CARBON	10K	5%	1/4W
R993	1-249-425-11	CARBON	4.7K	5%	1/4W
R996	1-247-815-91	CARBON	220	5%	1/4W
R997	1-215-445-00	METAL	10K	1%	1/4W
R998	1-249-434-11	CARBON	27K	5%	1/4W
R999	1-249-434-11	CARBON	27K	5%	1/4W

<RELAY>

RY601	⚠	1-755-018-11	RELAY

<TRANSFORMER>

T501	⚠	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE
T502	⚠	1-431-896-11	TRANSFORMER, FERRITE (PMT)
T503	⚠	1-431-212-11	TRANSFORMER, HORIZONTAL LINEAR
T504	⚠	8-598-994-00	FBT ASSY, NX-4007//X4A4
T603		1-448-374-11	TRANSFORMER, POWER
T604	⚠	1-429-992-11	TRANSFORMER, CONVERTER (PRT)
T605	⚠	1-429-986-11	TRANSFORMER, CONVERTER (PIT)

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CR **CG**

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1331-804-A	CR BOARD, COMPLETE (VAR)			
		**********			
		<CAPACITOR>			
C702	1-102-959-00	CERAMIC	22PF	5%	50V
C703	1-104-664-11	ELECT	47µF	20%	25V
C704	1-126-964-11	ELECT	10µF	20%	50V
C705	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C706	1-126-934-11	ELECT	220µF	20%	16V
C707	1-107-504-11	CERAMIC	10PF	0.5PF	500V
C708	1-102-050-00	CERAMIC	0.01µF	99%	500V
C709	1-162-115-00	CERAMIC	330PF	10%	2KV
C712	1-107-662-11	ELECT	22µF	20%	250V
		<CONNECTOR>			
CN701	1-695-915-11	TAB (CONTACT)			
CN702 *	1-564-510-11	PLUG, CONNECTOR 7P			
CN703 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN704 *	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P			
CN705 ⚠	1-251-182-11	SOCKET, CRT			
CN706 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN707	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D701	8-719-991-33	DIODE 1SS133T-77			
D702	8-719-991-33	DIODE 1SS133T-77			
D703	8-719-991-33	DIODE 1SS133T-77			
D704	8-719-991-33	DIODE 1SS133T-77			
D705	8-719-923-86	DIODE MTZJ-T-77-15			
D706	8-719-923-86	DIODE MTZJ-T-77-15			
D708	8-719-110-17	DIODE RD10ESB2			
D709	8-719-109-88	DIODE RD5.6ESB1			
D710	8-719-991-33	DIODE 1SS133T-77			
		<IC>			
IC701	8-759-434-39	IC TDA6106Q			
		<COIL>			
L701	1-410-682-31	INDUCTOR	470µH		
		<NEON LAMP>			
NL701	1-517-778-21	LAMP, NEON			
		<TRANSISTOR>			
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE			

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R701	1-219-745-11	CARBON	470	5%	1/2W
R702	1-215-425-00	METAL	1.5K	1%	1/4W
R703	1-215-437-00	METAL	4.7K	1%	1/4W
R704	1-260-132-11	CARBON	560K	5%	1/2W
R705	1-215-424-00	METAL	1.3K	1%	1/4W
R706	1-215-431-00	METAL	2.7K	1%	1/4W
R707	1-249-435-11	CARBON	33K	5%	1/4W
R708	1-215-428-00	METAL	2K	1%	1/4W
R709	1-260-101-11	CARBON	1.5K	5%	1/2W
R710	1-215-903-11	METAL OXIDE	68K	5%	2W
R711	1-249-435-11	CARBON	33K	5%	1/4W
R712	1-247-807-31	CARBON	100	5%	1/4W
R713	1-249-437-11	CARBON	47K	5%	1/4W
R714	1-260-099-11	CARBON	1K	5%	1/2W
R715	1-260-133-11	CARBON	680K	5%	1/2W
R717	1-249-417-11	CARBON	1K	5%	1/4W
R718	1-247-807-31	CARBON	100	5%	1/4W
R719	1-260-087-11	CARBON	100	5%	1/2W
		<SPARK GAP>			
SG701	1-519-422-11	GAP, SPARK			
SG702	1-519-422-11	GAP, SPARK			
**********					
*	A-1331-805-A	CG BOARD, COMPLETE (VAR)			
		**********			
		<CAPACITOR>			
C732	1-102-963-00	CERAMIC	33PF	5%	50V
C733	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C735	1-102-050-00	CERAMIC	0.01µF	99%	500V
C736	1-162-115-00	CERAMIC	330PF	10%	2KV
C737	1-107-662-11	ELECT	22µF	20%	250V
		<CONNECTOR>			
CN731	1-695-915-11	TAB (CONTACT)			
CN732 *	1-564-510-11	PLUG, CONNECTOR 7P			
CN733 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN734 *	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN735 ⚠	1-251-182-11	SOCKET, CRT			
CN736 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN737 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN738	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D731	8-719-991-33	DIODE 1SS133T-77			
D732	8-719-991-33	DIODE 1SS133T-77			
D733	8-719-110-17	DIODE RD10ESB2			

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

CG CB HA

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<IC>			
IC731	8-759-434-39	IC TDA6106Q			
		<COIL>			
L731	1-410-682-31	INDUCTOR	470µH		
		<NEON LAMP>			
NL731	1-517-778-21	LAMP, NEON			
		<RESISTOR>			
R731	1-219-743-11	CARBON	100	5%	1/2W
R732	1-260-132-11	CARBON	560K	5%	1/2W
R733	1-215-421-00	METAL	1K	1%	1/4W
R735	1-249-441-11	CARBON	100K	5%	1/4W
R736	1-215-430-00	METAL	2.4K	1%	1/4W
R737	1-260-101-11	CARBON	1.5K	5%	1/2W
R738	1-215-903-11	METAL OXIDE	68K	5%	2W
R739	1-260-133-11	CARBON	680K	5%	1/2W
R740	1-260-099-11	CARBON	1K	5%	1/2W
R741	1-215-424-00	METAL	1.3K	1%	1/4W
R742	1-247-885-00	CARBON	180K	5%	1/4W
R743	1-247-807-31	CARBON	100	5%	1/4W
		<SPARK GAP>			
SG731	1-519-422-11	GAP, SPARK			
SG732	1-519-422-11	GAP, SPARK			

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*	A-1331-806-A	CB BOARD, COMPLETE (VAR)			
		**********			
		<CAPACITOR>			
C762	1-102-963-00	CERAMIC	33PF	5%	50V
C763	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C765	1-102-050-00	CERAMIC	0.01µF	99%	500V
C766	1-162-115-00	CERAMIC	330PF	10%	2KV
C767	1-107-662-11	ELECT	22µF	20%	250V
		<CONNECTOR>			
CN761	1-695-915-11	TAB (CONTACT)			
CN762 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN763 *	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P			
CN764 ⚠	1-251-182-11	SOCKET, CRT			
CN765 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN766	1-564-513-11	PLUG, CONNECTOR 10P			
CN767	1-695-915-11	TAB (CONTACT)			

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D761	8-719-991-33	DIODE 1SS133T-77			
D762	8-719-923-86	DIODE MTZJ-T-77-15			
D763	8-719-110-17	DIODE RD10ESB2			
D764	8-719-923-86	DIODE MTZJ-T-77-15			
		<IC>			
IC761	8-759-434-39	IC TDA6106Q			
		<COIL>			
L761	1-410-682-31	INDUCTOR	470µH		
		<NEON LAMP>			
NL761	1-517-778-21	LAMP, NEON			
		<RESISTOR>			
R761	1-219-743-11	CARBON	100	5%	1/2W
R762	1-260-132-11	CARBON	560K	5%	1/2W
R763	1-215-420-00	METAL	910	1%	1/4W
R764	1-249-426-11	CARBON	5.6K	5%	1/4W
R765	1-215-430-00	METAL	2.4K	1%	1/4W
R766	1-260-101-11	CARBON	1.5K	5%	1/2W
R767	1-215-903-11	METAL OXIDE	68K	5%	2W
R768	1-260-133-11	CARBON	680K	5%	1/2W
R769	1-260-099-11	CARBON	1K	5%	1/2W
R770	1-247-807-31	CARBON	100	5%	1/4W
R771	1-260-087-11	CARBON	100	5%	1/2W
		<SPARK GAP>			
SG761	1-519-422-11	GAP, SPARK			
SG762	1-519-422-11	GAP, SPARK			

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*	A-1372-476-A	HA BOARD, COMPLETE (VAR)			
		**********			
		<CAPACITOR>			
C1301	1-126-959-11	ELECT	0.47µF	20%	50V
C1302	1-126-959-11	ELECT	0.47µF	20%	50V
C1304	1-126-964-11	ELECT	10µF	20%	50V
C1305	1-126-959-11	ELECT	0.47µF	20%	50V
C1306	1-126-964-11	ELECT	10µF	20%	50V
C1307	1-126-964-11	ELECT	10µF	20%	50V
		<CONNECTOR>			
CN1301	1-564-523-11	PLUG, CONNECTOR 8P			

HA U Z

REF. NO.	PART NO.	DESCRIPTION			REMARK
CN1302*	1-564-526-11	PLUG, CONNECTOR 11P			
CN1304*	1-564-518-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D1301	8-719-110-17	DIODE RD10ESB2			
D1302	8-719-110-17	DIODE RD10ESB2			
D1303	8-719-110-17	DIODE RD10ESB2			
D1304	8-719-053-43	DIODE SLR-325VCT31			
D1305	8-719-053-43	DIODE SLR-325VCT31			
D1306	8-719-110-17	DIODE RD10ESB2			
D1307	8-719-110-17	DIODE RD10ESB2			
D1308	8-719-110-17	DIODE RD10ESB2			
D1309	8-719-109-89	DIODE RD5.6ESB2			
		<IC>			
IC1301	8-742-088-10	HYB IC SBX1780-51(10)			
		<JACK>			
J1301	1-770-361-11	TERMINAL BLOCK, S			
		<RESISTOR>			
R1301	1-249-425-11	CARBON	4.7K	5%	1/4W
R1302	1-249-416-11	CARBON	820	5%	1/4W
R1303	1-249-417-11	CARBON	1K	5%	1/4W
R1304	1-249-425-11	CARBON	4.7K	5%	1/4W
R1305	1-247-815-91	CARBON	220	5%	1/4W
R1306	1-247-815-91	CARBON	220	5%	1/4W
R1307	1-249-420-11	CARBON	1.8K	5%	1/4W
R1308	1-247-895-91	CARBON	470K	5%	1/4W
R1309	1-247-895-91	CARBON	470K	5%	1/4W
R1310	1-249-429-11	CARBON	10K	5%	1/4W
R1311	1-247-804-11	CARBON	75	5%	1/4W
R1312	1-247-804-11	CARBON	75	5%	1/4W
R1314	1-247-807-31	CARBON	100	5%	1/4W
R1315	1-247-804-11	CARBON	75	5%	1/4W
		<SWITCH>			
S1301	1-572-198-11	SWITCH, KEYBOARD			
S1302	1-572-198-11	SWITCH, KEYBOARD			
S1303	1-572-198-11	SWITCH, KEYBOARD			
S1304	1-572-198-11	SWITCH, KEYBOARD			
S1305	1-572-198-11	SWITCH, KEYBOARD			
S1306	1-572-198-11	SWITCH, KEYBOARD			
S1307	1-572-198-11	SWITCH, KEYBOARD			

****

* A-1373-667-A U BOARD, COMPLETE
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REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C4001	1-128-551-11	ELECT	22µF	20%	25V
C4002	1-128-551-11	ELECT	22µF	20%	25V
C4003	1-126-933-11	ELECT	100µF	20%	16V
C4004	1-126-964-11	ELECT	10µF	20%	50V
C4005	1-126-964-11	ELECT	10µF	20%	50V
		<CONNECTOR>			
CN4001*	1-564-522-11	PLUG, CONNECTOR 7P			
CN4002*	1-564-523-11	PLUG, CONNECTOR 8P			
		<DIODE>			
D4001	8-719-109-89	DIODE RD5.6ESB2			
D4002	8-719-109-89	DIODE RD5.6ESB2			
D4003	8-719-109-89	DIODE RD5.6ESB2			
D4004	8-719-109-89	DIODE RD5.6ESB2			
D4005	8-719-109-89	DIODE RD5.6ESB2			
D4006	8-719-110-17	DIODE RD10ESB2			
D4007	8-719-110-17	DIODE RD10ESB2			
D4008	8-719-110-17	DIODE RD10ESB2			
D4009	8-719-110-17	DIODE RD10ESB2			
D4010	8-719-110-17	DIODE RD10ESB2			
		<JACK>			
J4001	1-764-143-11	JACK 3P			
J4002	1-764-143-11	JACK 3P			
J4003	1-764-143-11	JACK 3P			
J4004	1-764-143-11	JACK 3P			
J4005	1-764-143-11	JACK 3P			
J4006	1-774-358-11	JACK BLOCK, PIN			
		<RESISTOR>			
R4006	1-247-895-91	CARBON	470K	5%	1/4W
R4007	1-247-895-91	CARBON	470K	5%	1/4W
R4008	1-247-804-11	CARBON	75	5%	1/4W
R4009	1-247-804-11	CARBON	75	5%	1/4W
R4010	1-247-804-11	CARBON	75	5%	1/4W

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* A-1390-826-A Z BOARD, COMPLETE (COM)
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4-382-854-11 SCREW (M3X10), P, SW (+)

		<CAPACITOR>			
C1433	1-106-343-00	MYLAR	0.001µF	10%	200V
C1434	1-106-383-00	MYLAR	0.047µF	10%	200V
C1435	1-107-667-11	ELECT	2.2µF	20%	160V
C1436	1-137-364-11	FILM	0.001µF	5%	50V
C1437	1-137-364-11	FILM	0.001µF	5%	50V
C1438	1-106-383-00	MYLAR	0.047µF	10%	200V

Z

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
C1439	1-161-830-00	CERAMIC	0.0047µF		500V
C1440	1-126-933-11	ELECT	100µF	20%	16V
C1441	1-102-074-00	CERAMIC	0.001µF	10%	50V
C1443	1-126-935-11	ELECT	470µF	20%	16V
C1444	1-107-639-11	ELECT	47µF	20%	160V
C1445	1-126-933-11	ELECT	100µF	20%	16V
C1446	1-126-933-11	ELECT	100µF	20%	16V
		<CONNECTOR>			
CN1401*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1402	1-564-505-11	PLUG, CONNECTOR 2P			
CN1403*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1404*	1-564-507-11	PLUG, CONNECTOR 4P			
CN1406*	1-564-507-11	PLUG, CONNECTOR 4P			
CN1431*	1-564-508-11	PLUG, CONNECTOR 5P			
CN1433*	1-564-507-11	PLUG, CONNECTOR 4P			
CN1434*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN1461*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1462*	1-564-507-11	PLUG, CONNECTOR 4P			
CN1463	1-564-505-11	PLUG, CONNECTOR 2P			
CN1464*	1-564-507-11	PLUG, CONNECTOR 4P			
CN1465	1-564-505-11	PLUG, CONNECTOR 2P			
		<DIODE>			
D1431	8-719-110-88	DIODE RD39ESB2			
D1432	8-719-110-88	DIODE RD39ESB2			
D1433	8-719-991-33	DIODE 1SS133T-77			
		<CONNECTOR>			
DY1431	⚠1-451-454-11	DEFLECTION YOKE			
		<COIL>			
L1431	1-410-478-11	INDUCTOR	47µH		
L1432	1-410-478-11	INDUCTOR	47µH		
		<TRANSISTOR>			
Q1431	8-729-017-06	TRANSISTOR 2SC4793			
Q1432	8-729-017-05	TRANSISTOR 2SA1837			
Q1433	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q1434	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q1435	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q1436	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R1401	1-249-414-11	CARBON	560	5%	1/4W
R1402	1-249-414-11	CARBON	560	5%	1/4W
R1415	1-216-475-11	METAL OXIDE	120	5%	3W
R1418	1-216-475-11	METAL OXIDE	120	5%	3W
R1431	1-249-414-11	CARBON	560	5%	1/4W
R1432	1-249-414-11	CARBON	560	5%	1/4W
R1435	1-216-475-11	METAL OXIDE	120	5%	3W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1436	1-216-475-11	METAL OXIDE	120	5%	3W
R1437	1-249-414-11	CARBON	560	5%	1/4W
R1438	1-249-432-11	CARBON	18K	5%	1/4W
R1439	1-249-432-11	CARBON	18K	5%	1/4W
R1440	1-249-414-11	CARBON	560	5%	1/4W
R1441	1-249-417-11	CARBON	1K	5%	1/4W
R1442	1-249-408-11	CARBON	180	5%	1/4W
R1443	1-249-377-11	CARBON	0.47	5%	1/4W
R1445	1-249-403-11	CARBON	68	5%	1/4W
R1448	1-249-416-11	CARBON	820	5%	1/4W
R1449	1-249-403-11	CARBON	68	5%	1/4W
R1450	1-249-417-11	CARBON	1K	5%	1/4W
R1451	1-249-411-11	CARBON	330	5%	1/4W
R1452	1-249-417-11	CARBON	1K	5%	1/4W
R1453	1-249-401-11	CARBON	47	5%	1/4W
R1454	1-260-311-11	CARBON	39	5%	1/2W
R1455	1-249-384-11	CARBON	1.8	5%	1/4W
R1456	1-215-916-00	METAL OXIDE	680	5%	3W
R1457	1-249-417-11	CARBON	1K	5%	1/4W
R1458	1-249-384-11	CARBON	1.8	5%	1/4W
R1459	1-249-400-11	CARBON	39	5%	1/4W
R1460	1-215-916-00	METAL OXIDE	680	5%	3W
R1461	1-249-414-11	CARBON	560	5%	1/4W
R1462	1-249-414-11	CARBON	560	5%	1/4W
R1464	1-249-417-11	CARBON	1K	5%	1/4W
R1465	1-216-475-11	METAL OXIDE	120	5%	3W
R1466	1-216-475-11	METAL OXIDE	120	5%	3W

****

MISCELLANEOUS
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⚠	A-1501-277-A	COUPLER (B) ASSY, PICTURE TUBE
⚠	A-1501-278-A	COUPLER (R) ASSY, PICTURE TUBE
⚠	A-1501-279-A	COUPLER (G) ASSY, PICTURE TUBE
⚠	1-223-925-11	RESISTOR ASSY (HIGH-VOLTAGE)
⚠	1-451-454-11	DEFLECTION YOKE (G)
⚠	1-451-454-31	DEFLECTION YOKE (R) (B)
	1-505-426-11	SPEAKER (10.6CM)
	1-556-945-21	CABLE, P-P
*	1-557-056-31	CABLE, P-P
⚠	1-769-796-11	CORD, POWER (WITH CONNECTOR)
	8-598-414-00	ANTENNA SWITCH AS-2F
⚠	8-598-955-30	BLOCK ASSY, HIGH-VOLTAGE

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ACCESSORIES AND PACKING MATERIALS
****

	3-862-729-11	MANUAL, INSTRUCTION
*	4-041-426-01	BAG, PROTECTION
*	4-042-463-01	SHEET, PROTECTION
*	4-047-774-01	PLATE, TOP
*	4-056-291-01	INDIVIDUAL CARTON

REF. NO.	PART NO.	DESCRIPTION	REMARK
		REMOTE COMMANDER	
		**********	
	1-475-215-21	REMOTE COMMANDER (RM-Y903)	
	4-978-977-01	POCKET, COVER (FOR RM-Y903)	

9-965-231-01

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